

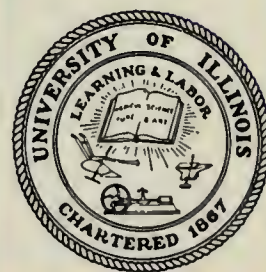
STUDIES IN THE LINGUISTIC SCIENCES

Volume 6, Number 2
Fall 1976

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STUDIES IN THE LINGUISTIC SCIENCES

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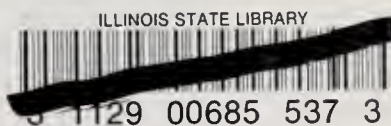
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Charles W. Kisseberth

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FOREWORD

The African Language and Linguistics Program in the Department of Linguistics at the University of Illinois was started in 1969. In the Spring of 1970, six months after the inception of the program, the Department organized and sponsored the first Conference on African Languages and Linguistics. The African Studies Program and the Office of International Programs and Studies helped with financial support. The Conference effectively identified the University of Illinois as a potential African language and linguistics center. In 1971, the proceedings of this conference were published by Linguistic Research, Inc., edited by Chin-W. Kim and Herbert Stahlke, entitled Papers in African Linguistics. Since that first gathering, the Conference on African linguistics has become an annual international forum of scholars in the field.

The present issue of Studies in the Linguistic Sciences, which is devoted to African linguistics in recognition of the growing strength of the program, constitutes another step in the development of the program. Although the focus of the research in recent years has been on Bantu languages, a fact which is reflected in part by the number of papers based on Bantu languages in this volume, the scope of the program has always been much broader, as exemplified by publications of our students and faculty members since 1971. However, our focus and strength has been in the area of Bantu and West African languages: four doctoral dissertations have been submitted on the languages of these areas. Our language program, which now includes four languages (Hausa, Lingala, Swahili, and Wolof), also focuses on these two areas.

Five of the seven papers in this issue are devoted to syntax; they address themselves to questions raised by recent work in generative grammar on grammatical relations, pragmatics, and language universals. The other two papers are on phonology and sociolinguistics. The paper on phonology deals with a number of issues, two of which are the role of grammatical structure in phonology and the multiple application of rules. The paper on sociolinguistics deals with the problem of language in education within the framework of the sociopolitical philosophy of

authenticity in Zaire. The reader will find in this set of papers not only copious data on the six Bantu languages studied, but also well-balanced descriptive and theoretical essays that are strongly data-oriented. While the issues dealt with here are not new, the body of data presented in these papers make them more compelling:

It is our hope that the present volume will make a small contribution in the ever-growing field of African linguistics. As always, comments and criticisms from colleagues are most welcome. We gratefully acknowledge the support of the African Studies Program toward the production of this issue.

Eyamba G. Bokamba

Charles W. Kisseberth

REFLEXIVIZATION IN CHIMWI:NI

Mohammad Imam Abasheikh

0. Introduction.

This paper will discuss the phenomenon of reflexivization in Chimwi:ni. The primary concern will be to establish (1) the direction in which the reflexivization rule operates (i.e. what is the order of the antecedent relative to the reflexive pronoun?), (2) which NPs in a clause are eligible to undergo reflexivization, (3) which NPs in a clause are eligible to serve as the antecedent, or "trigger", of reflexivization, and (4) the domain of reflexivization (i.e. is reflexivization clause-bounded or not?). This paper represents the first attempt to explore the phenomenon of reflexivization in Chimwi:ni and thus must be understood to be of a preliminary nature.

1. Background.

1.1. The language. The language that we are dealing with here is known to some Europeans as Bravanese, but the native population refer to it as Chimwi:ni. This name consists of two morphemes: chi- is a prefix that is characteristically used to mean 'in the way or manner of', but also indicates 'the language of', and mwini is the native name of the town where the language is spoken. This town, known to outsiders as "Brava" or "Barawa", is a coastal town located in southern Somalia some two hundred kilometers south of Mogadishu.

Chimwi:ni is a Bantu language very closely related to Swahili, especially the Swahili dialects spoken by the Bajunis, the inhabitants of the so-called islands of the Bajunis located off the coast of southern Somalia and northern Kenya. Chimwi:ni has sometimes been referred to as a dialect of Swahili (cf. Whiteley 1965 and Goodman 1967), but this appellation is open to serious doubt. The differences between Chimwi:ni and Swahili are substantial at all levels of grammatical and lexical structure; a discussion of these differences is beyond the scope of this paper, however.

1.2. Word order. While the basic word order of Chimwi:ni is SVO, there is considerable flexibility. One may move words from their normal positions in order to topicalize them, give them added emphasis, convey

certain semantic contrasts not otherwise morphologically marked, and so on. Thus, while (1) below represents the 'unmarked' word order, both (2) and (3) are also possible.

- (1) Ali Ø-chi-ji:le cha:kuja

SP OP ate food

'Ali ate the food.'

(Note: SP refers to the obligatory subject prefix (which in this example happens to be phonologically zero) that must occur on a finite verb; OP refers to the object prefix, which in Chimwi:ni is generally used to definitize the object of the verb. See below for more discussion.)

- (2) cha:kuja, Ali Ø-chi-ji:le

food SP OP ate

'As for the food, Ali ate it.'

- (3) Ø-chi-ji:le Ali cha:kuja (In this example the action is being emphasized.)

In the case of (4) and (5) below, the difference in word order serves to signal a difference in the definiteness of the subject of the sentence.

- (4) mwa:na Ø-ile

boy SP came

'The boy came.'

- (5) Ø-ile mwa:na

SP came boy

'A boy came.'

In the present paper, examples will generally be restricted to those involving the basic word order.

1.3. Verb structure. Chimwi:ni is an agglutinative language, with verbs showing the greatest morphological complexity. Verbs may be very simple in structure (e.g. a singular imperative may consist of just the verb root plus the terminal vowel -a; cf. j-a 'eat!' or o!ok-a 'go!') or quite complex (e.g. nt^ha-wa-na-ki-chi-le:t-el-a 'they are not bringing (it) to us'). The linear structure of the finite verb is roughly as follows.

(Neg)-SP-(T₁)-(OP)-Root-(DA)-(T₂)-(Pass)-TV

where Neg = negative morpheme, T = tense marker, DA = one or more derivational affixes, Pass = the passive marker, and TV = the terminal vowel that obligatorily terminates any verbal form. Not all of the elements in parentheses may co-occur; e.g. T₁ and T₂ are mutually exclusive, as

are Neg and T_2 . It is also the case that either T_1 or T_2 must appear (on a finite verb), both may not be absent. The examples given below illustrate some of the possible combinations of grammatical elements in a Chimwi:ni finite verb.

(5) a. wa-xada'-i:l-e

SP-cheat- T_2 -TV

'They cheated.'

b. nt^ha-wa-m-xada'-a

Neg-SP-OP-cheat-TV

'They didn't cheat him.'

c. ha-wa-ta-m-xada'-a

Neg-SP- T_1 -OP-cheat-TV

'They will not cheat him.'

d. ha-wa-ta-m-xada'-il-a

Neg-SP- T_2 -OP-cheat-DA-TV

'They will not cheat (someone) for/on him.'

2. Grammatical Relations in Chimwi:ni.

It will be shown below that the type of grammatical relationship that holds between a NP and a verb is critical to the application of reflexivization in Chimwi:ni. Consequently, it is necessary at this point to provide a brief description of some of the main features of grammatical relations in the language. The reader is referred to Kisseberth and Abasheikh (1977) for a fuller discussion of some of the problems revolving around the notion 'object' in Chimwi:ni.

As is generally the case in Bantu languages, grammatical relations such as 'subject-of' or 'object-of' are not formally marked on nouns in any way (i.e. there is no system of cases operative in the language). Nouns are uninflected. A basic division can be made between NPs that appeared 'marked' and those that appear 'unmarked'. By 'marked' we mean preceded by a preposition or followed by a (locative) postposition. By 'unmarked' we mean lacking any such pre- or postposition. It is rather clear that in Chimwi:ni marked NPs do not function either as subjects or objects (the language lacks the typically Bantu constructions where locative phrases function as grammatical subjects and/or objects). The grammatical roles of unmarked NPs are rather more complex. Grammarians

have generally identified grammatical relations on the basis of certain morphosyntactic or syntactic behavior which are briefly summarized below.

2.1. The subject: The subject of a Bantu finite verb is generally taken to be that NP which (1) occurs in pre-verbal position in sentences with neutral word order, (2) governs the selection of the subject prefix that obligatorily occurs on the verb, and (3) is eligible to be 'demoted' via the syntactic process of passivization (in which case it will appear marked by the preposition na and will, typically, be postposed to the end of the verb phrase). Doubtless the criterion that is most consistently used is verb agreement. It should be pointed out here that Chimwiini has a well-developed noun class system, such that each nominal belongs to one of some twelve noun classes. A noun class is identified in terms of the noun class prefix that appears on the noun itself and the pattern of agreement that the noun determines. Consider, for example, (7) below.

(7) a. chi-bu:ku chi-b-e:l-e

NCP SP-lose-T₂-TV

'The book got lost.'

b. zi-bu:ku zi-b-e:l-e

NCP SP-lose-T₂-TV

'The books got lost.'

c. mu-ke Ø-liz-il-e

NCP SP-cry-T₂-TV

'The woman cried.'

d. wa-ke wa-liz-il-e

NCP SP-cry-T₂-TV

'The women cried.'

Note: NCP = noun class prefix.

The above examples illustrate the point that noun classes generally are paired into singular and plural classes. Thus a noun like chibu:ku 'book' belongs to a class which has a chi- prefix on the noun and governs a chi- subject prefix on the verb. Nouns of this class typically have a plural form with zi- as the noun class prefix and zi- as the corresponding SP on the verb. It should be noted that the noun class prefix is not always phonologically identical to the agreement morpheme that the noun governs. Thus muke 'woman' has mu- as its noun class prefix, but governs a \emptyset form of the SP.

A noun such as chibu:ku in (7a) would be said to be the subject of the verb on the basis of the fact that it controls the selection of the SP on the verb. Furthermore, chibu:ku is in pre-verbal position. The syntax of (7a) is such that chibu:ku cannot be moved out of subject position via passivization. This inability to undergo passivization would not ordinarily prevent Bantuists from identifying chibu:ku as the subject. Consider now (8).

- (8) a. mu-ke Ø-chi-som-a chi-bu:ku
 woman SP-T₁-read-TV book
 'The woman was reading a book.'
- b. chi-bu:ku sh-chi-som-ow-a na: mu-ke
 book SP-T₁-read-Pass-TV by woman
 'The book was being read by the woman.'

(Note: the prefix /chi/ is converted to sh before a voiceless obstruent in many contexts.)

In (8a) muke governs the choice of the SP, and occurs in pre-verbal position. (8b) reveals that muke can be demoted via passivization. These observations have led to the view that muke is the subject of (8a).

2.2. The object. The notion 'direct object' raises a number of problems in Chimwi:ni as in other Bantu languages (for some discussion, see Kisseberth and Abasheikh 1977). For present purposes we will take the following (traditional) properties as serving to identify a direct object in Chimwi:ni: (1) it is the NP that controls the choice of the object prefix (OP) that may appear immediately before the verb root; (2) it is the NP that, in neutral contexts at least, immediately follows the verb; and (3) it is the NP that may be promoted to subject via the syntactic process of passivization. Take (9) as an example.

- (9) mu-ke Ø-m-p-el-e Mu:sa chi-bu:ku
 woman SP-OP-give-T₂-TV book
 'The woman gave Musa a book.'

The OP in (9) has the shape -m-, which is the shape determined by a human noun such as Mu:sa. It is ungrammatical in Chimwi:ni to replace -m- in (9) with the OP governed by chibu:ku. Notice that not only does Mu:sa govern the OP, it also immediately follows the verb. This represents the normal word order. It is possible to put chibu:ku after the verb, but this has the effect of stressing chibu:ku heavily. The OP will

continue to be -m- even if chibu:ku is put after the verb. Not only does Mu:sa govern the OP and follow the verb, it is also eligible to be passivized. (10) is grammatical.

- (10) Mu:sa Ø-p-el-a chi-bu:ku na: mu-ke
 SP-give-T₂-TV book by woman

'Musa was given a book by the woman.'

(The passive of a verb containing T₂--perfective--is phonologically complex; the passive morpheme -o:w- is not overtly realized. The reader is referred to Kisseberth and Abasheikh 1976 for discussion.)

Although (10) is grammatical, (11) is not.

- (11) *chi-bu:ku sh-p-el-a Mu:sa na: mu-ke
 book SP-give-T₂-TV by woman

'The book was given to Musa by the woman.'

Just as chibu:ku cannot govern the OP in (9), it also cannot be promoted to subject via passivization. We shall thus consider Mu:sa to be the direct object in (9). chibu:ku in (9) will be referred to as a secondary object.

There are in Chimwi:ni a number of simple verbs (i.e. verbs not 'extended' by means of derivational affixes) like -p- 'give' which allow two unmarked NPs to follow them in post-verbal position. The NP that is indirectly affected by the action (e.g. Mu:sa in our example sentence) will function as the direct object, whereas the NP that is directly affected by the action (chibu:ku in our example) will function as the secondary object.

In the case of simple verbs that take a single unmarked non-subject NP, that NP will be the direct object if it is the 'patient' or 'recipient' of the action. Thus in cha:kuja 'food' is the direct object in (12a).

- (12) a. mu-ke Ø-sh-pish-il-e ch-a:kuja
 woman SP-OP-cook-T₂-TV food

'The woman cooked the food.'

- b. ch-a:kuja sh-pish-il-a na: mu-ke
 food SP-cook-T₂-TV by woman

'The food was cooked by the woman.'

If a simple verb is extended by means of a derivational affix--e.g. the so-called 'applied' suffix, which indicates that the action is done for someone's benefit, or is directed towards someone or something, or is

done by means of some instrument--an 'extra' unmarked NP will typically occur in the sentence. This NP will typically function as the direct object of the extended verb. Take (13) as an example.

- (13) a. mu-ke Ø-m-pik-il-il-e mw-a:na ch-a:kuja
 woman SP-OP-cook-DA-T₂-TV child food
 'The woman cooked the food for the child.'
- b. mw-a:na Ø-pik-il-il-a ch-a:kuja na: mu-ke
 child SP-cook-DA-T₂-TV food by woman
 'The child was cooked-for food by the woman.'

In (13a) it is mw-a:na 'child'; the beneficiary of the action, that is the direct object of the verb, not ch-a:kuja. Thus mw-a:na can be passivized--cf. (13b), whereas ch-a:kuja cannot be. (14) is ungrammatical.

- (14) *ch-a:kuja sh-pik-il-il-a mw-a:na na: mu-ke
 food SP-DA-T₂-TV child by woman
 'Food was cooked-for the child by the woman.'

It should be emphasized that although a direct object will govern the choice of an OP, it is not the case that the OP will appear on a verb whenever a direct object is present in the clause. If an OP occurs, it signals a definite direct object. Lack of an OP is associated with an indefinite direct object (or at least an object whose definiteness is not an issue). The noun itself is not marked for definiteness. Some examples:

- (15) a. Ali Ø-j-il-e ch-a:kuja
 SP-eat-T₂-TV food
 'Ali ate some food.'
- b. Ali Ø-chi-j-il-e ch-a:kuja
 SP-OP-eat-T₂-TV food
 'Ali ate the food.'
- c. Ali Ø-bish-il-e mw-a:na
 SP-hit-T₂-TV child
 'Ali hit a child.'
- d. Ali Ø-m-bish-il-e mw-a:na
 SP-OP-hit-T₂-TV child
 'Ali hit the child.'

3. The Verbal Extensions.

The derivational affixes that are employed to 'extend' the meaning of a simple verb are typically referred to by Bantuists as 'verbal extensions', and a verb that contains one of these affixes is referred to as an 'extended verb'. As we noted above, the direct object of an extended verb is generally different from the direct object of the corresponding simple verb. Consequently, any investigation of syntactic problems in Chimwi:ni involving grammatical relations will necessarily deal to a large extent with extended verbs. The purpose of this section is to provide some additional information regarding those verbal extensions in Chimwi:ni that will be most crucially involved in subsequent discussion: namely, the applied suffix and the causative suffix.

The applied verb contains a suffix -il- (or one of a number of morphophonemic variants: -el-, -il-, -el-, -iliz-, -elez-). The applied verb has a multiplicity of senses; we mention, just three here: benefactive, directional, and instrumental. This suffix is totally productive in all three of these senses, thus a given verb is potentially three-ways ambiguous (though in most instances the meaning of the verb root will exclude one or more of the senses).

In its benefactive use, the applied verb indicates either that the action is done to someone's (or something's) benefit or to someone's (or something's) detriment. (16) illustrates the benefactive applied.

- (16) a. Ali Ø-m-pik-il-il-e mw-a:limu ch-a:kuja
 SP-OP-cook-DA-T₂-TV teacher food
 'Ali cooked the food for the teacher.'
- b. Ali Ø-m-big-il-il-e mw-a:limu mw-a:na
 SP-OP-hit-DA-T₂-TV teacher child
 'Ali hit the child on the teacher.'

In (16a) mw-a:limu 'teacher' is the beneficiary of the action (-pik- 'cook') in that the food has been cooked for his benefit (e.g. he is to eat it). In (16b), mw-a:limu is also the beneficiary, but the action is done to his detriment: the meaning conveyed is that Ali hit the teacher's child, and the teacher disapproves of his child being struck.

Directional applied verbs indicate that the action initiated by the subject is directed to someone or something; in other words, they express motion towards. Examples:

- (17) a. Ali Ø-m-let-el-el-e mw-a:limu ch-a:kuja
 SP-OP-bring-DA-T₂-TV teacher food
 'Ali brought food to the teacher.'
- b. Ali Ø-mw-andik-il-il-e mw-a:limu Ø-xati
 SP-OP-write-DA-T₂-TV teacher letter
 'Ali wrote a letter to the teacher.'

Instrumental applied verbs convey the notion of performing the action of the verb root 'by means of' or 'with' a certain instrument. Thus:

- (18) Ali Ø-tind-il-il-e: Ø-nama chi-su
 SP-cut-DA-T₂-TV meat knife
 'Ali cut the meat with a knife.'

The applied verb thus expresses basically 'prepositional' concepts such as 'for', 'to', and 'with'. In each instance, the noun phrase that is related to the prepositional concept--the beneficiary in (16), the NP towards whom the action is directed in (17), and the instrument in (18)--functions as the direct object of the applied verb. (In the case of the instrumental applied there are various complications which are discussed in detail in Kisseberth and Abasheikh 1977.)

Causative verbs in Chimwi:ni are formed by means of a suffix having the shape -ish- (alternating with -esh- by virtue of a vowel harmony process) or -iz- (alternating with -ez- by the same vowel harmony principle) or by a modification of the final consonant of the verb root. The causative verb conveys the idea of 'make someone Verb' or 'cause someone to Verb'. The precise implication of the causative verbal form is, however, subject to variation. The notion of 'cause' that is conveyed is a very broad one and may include any influence that can contribute to a particular result; a causative verb may (in some cases) indicate assistance, persuasion, or permission rather than force. Some examples:

- (19) a. Ali Ø-m-tez-esh-ez-e mw-a:na
 SP-OP-play-DA-T₂-TV child
 'Ali caused the child to play.'
- b. Ali Ø-m-duguw-ish-iz-e mu:-nt^hu
 SP-OP-limp-DA-T₂-TV man
 'Ali helped the man limp along.'

c. Ali Ø-mw-ingiz-Ø-e mw-a:na

SP-OP-cause-T₂-TV child
enter

'Ali allowed the child to enter.'

Note: the verb -ingiz- forms its causative by modifying its final consonant to z.

In a causative construction, it is the noun phrase that functions as the subject of the simple non-causative verb that assumes the role of direct object of the causative verb. Consider a sentence such as (20):

(20) mu-ke Ø-pish-il-e ch-a:kuja

woman SP-cook-T₂-TV food

'The woman cooked the food.'

If a causative verb is formed from -pik- 'cook', it will be the person who does the cooking that will function as direct object of the causative verb, as (21) illustrates.

(21) Ali Ø-m-pik-ish-iz-e mu-ke ch-a:kuja

SP-OP-cook-DA-T₂-TV woman food

'Ali made the woman cook the food.'

It is muke in (21) that governs the OP and follows immediately after the verb and can be passivized; cf. (22).

(22) mu-ke Ø-pik-ish-iz-a ch-a:kuja

woman SP-cook-DA-T₂-TV food

'The woman was made to cook the food.'

Note: the reader is reminded that the passive of a verb containing T₂ does not contain an overt passive morpheme, though the passive form can still be distinguished from an active form on various grounds. See Kisseberth and Abasheikh 1976.

cha:kuja in (21) cannot control the OP and cannot be passivized; (23) is ungrammatical.

(23) *ch-a:kuja sh-pik-ish-iz-a: mu-ke

food SP-cook-DA-T₂-TV woman

The applied and the causative verbal extensions may be combined to convey the notion 'cause someone to do something for/on someone.'

(24) illustrates this usage.

(24) a. Ali Ø-m-tek-esh-elez-Ø-e mw-a:limu mw-a:na

SP-OP-laugh-DA-DA-T₂-TV teacher child

'Ali made the child laugh on the teacher.'

- b. Ali Ø-m-shik-ish-iliz-e I:sa mw-a:na noka
 SP-OP-hold-DA-DA-TV child snake

'Ali made the child hold a snake on Isa.'

In this construction it is the beneficiary that functions as the direct object of the applied causative verb, not the noun phrase referring to the individual who performs the action of the simple verb (mw-a:na in the above example).

4. Reflexive Pronouns. Bantu languages typically have an OP that plays the role of a reflexive pronoun. In Chimwi:ni no such OP is in use (though vestigial instances of the prefix can be found). Chimwi:ni now uses the morpheme ru:hu-, a loanword from Arabic meaning 'soul' or 'spirit', plus a possessive ending as a reflexive pronoun. Possessive endings in Chimwi:ni consist of an agreement morpheme (determined by the noun class of the noun to which the possessive ending is added) plus a person/number suffix. The full form of the Chimwi:ni reflexive pronouns are given in (25) below.

- | | | |
|------|-------------|--------------|
| (25) | ru:hu-y-a | 'myself' |
| | ru:hu-y-o | 'yourself' |
| | ru:hu-y-e | 'himself' |
| | ruhu-z-i:tu | 'ourselves' |
| | ruhu-z-i:nu | 'yourselves' |
| | ruhu-z-a:wo | 'themselves' |

We will not be concerned in this paper with the question of whether reflexive pronouns are to be derived by transformation from underlying full noun phrases (as in early transformational analyses) or accounted for by means of output conditions/interpretation rules, etc. For convenience we will speak of reflexivization in Chimwi:ni as a process that (somehow) specifies that a reflexive pronoun will appear in a certain position in a sentence provided that there is a co-referential NP (the 'antecedent' or 'trigger') located at some other position in the sentence. The position where the reflexive pronoun appears will be labeled the 'target'.

In Chimwi:ni reflexivization seems to have the following primary features (the first three of which at least are found in many natural languages).

(I) Reflexivization works in only one direction, namely, from left to right (i.e. the antecedent must precede the target).

(II) Reflexivization is clause-bounded (i.e. the antecedent and the target must be in the same clause at some point in the derivation).

(III) The antecedent must always be a subject (or a NP that was a subject at some point in the derivation of the sentence).

(IV) The target NP must always be a direct object (or a NP that was a direct object at some point in the derivation).

Let us begin by considering the data in (26).

- (26) a. *Mu:sa_i Ø-xada'-il-e Mu:sa_i
 SP-cheat-T₂-TV
 *'Musa_i cheated Musa_i.'
- b. Mu:sa Ø-xada'-il-e ru:hu-y-e
 SP-cheat-T₂-TV
 'Musa cheated himself.'
- c. *mi n-xada'-il-e ru:hu-y-é
 I SP-cheat-T₂-TV himself
 *'I cheated himself.'
- d. *ru:hu-y-e i-xada'-il-e Mu:sa
 himself SP-cheat-T₂-TV
 *'Himself cheated Musa.'

The ungrammaticality of (26a) as compared with the grammaticality of (26b) suggests that Chimwi:ni, like many other languages, disallows sentences of the structure NP-V-NP where the two NPs are co-referential and identical in form. Instead of this structure one is allowed to have another structure where a reflexive pronoun occurs instead of one of the NPs. (26c) shows that the occurrence of reflexive pronouns is not (in general) free; that is, reflexive pronouns occur only when there is another NP in the sentence co-referential to the reflexive pronoun. (26d) shows that the reflexive pronoun may not precede the NP that is its antecedent. In other words, reflexivization is from left to right, the antecedent preceding the target.

The above observations are not, of course, very surprising. Nor is it surprising that reflexivization in Chimwi:ni is clause-bounded. Evidence for this claim is provided by the data in (27).

(27) a. Mu:sa \emptyset -had-il-e kuwa: mi ni-m-lum-il-é
 SP-say-T₂-TV that I SP-OP-bite-T₂-TV
 'Musa said that I bit him.'

b. *Mu:sa \emptyset -had-il-e kuwa: mi n-dum-il-e ru:hu-y-é
 SP-say-T₂-TV that I SP-bite-T₂-TV himself
 *'Musa said that I bit himself.'

(27b) shows that even if the antecedent precedes the target, a reflexive cannot appear if the target is in a sentential complement and the trigger is outside that complement. In (27b) the target is in object position in the complement clause. An ungrammatical sentence also results if the target is the subject of the complement sentence.

(28) a. Mu:sa_i \emptyset -had-il-e kuwa: ye_i \emptyset -m-lumil-e mw-a:na
 SP-say-T₂-TV that he SP-OP-bite-T₂-TV child
 'Musa said that he bit the child.'

b. *Mu:sa \emptyset -had-il-e kuwa ru:hu-y-e i-m-lum-il-e mw-a:na
 SP-say-T₂-TV that himself SP-OP-bite-T₂-TV child

The examples in (27) and (28) show that reflexivization does not 'go down into' complement clauses marked by kuwa 'that'. There are, of course, instances where the subject of a kuwa-complement appears to be raised into a higher clause and thus is eligible to assume a reflexive shape. Take (29) as an example.

(29) a. Halima_i \emptyset -amin-il-e kuwa: ye_i ni mw-a:limu
 SP-believe-T₂-TV that she is a teacher
 'Halima believed that she was a teacher.'

b. *Halima \emptyset -amin-il-e kuwa ru:hu-y-e ni mw-a:limu
 SP-believe-T₂-TV that herself is a teacher
 *'Halima believed that herself was a teacher.'

c. *Halima_i \emptyset -amin-il-e: ye_i kuwa ni mw-a:limu
 SP-believe-T₂-TV she that be a teacher
 *'Halima_i believed her_i to be a teacher.'

d. Halima \emptyset -amin-il-e ru:hu-y-e kuwa ni mw-a:limu
 SP-believe-T₂-TV herself that is a teacher
 'Halima believed herself to be a teacher.'

In (29b) we see that the subject of the complement cannot be reflexive

even though the main clause has a co-referential NP. In (29c-d) we see that if the subject of the complement is raised out of the lower clause, this raised NP must be reflexive due to the occurrence of an antecedent in the higher clause.

Let us turn now to the main interest of the present paper: namely, the claim that only subjects trigger reflexivization and only direct objects are targets of reflexivization in Chimwi:ni. We consider first of all a number of pairs of sentences which show that well-formed reflexive constructions occur when the conditions mentioned above are satisfied. First of all, take the case of a simple verb stem followed by one unmarked NP.

- (30) a. mw-a:na Ø-m-lum-il-e Nu:ru
 child SP-OP-bite-T₂-TV
 'The child bit Nuru.'
- b. mw-a:na Ø-lum-il-e ru:hu-y-e
 child SP-bite-T₂-TV himself
 'The child bit himself.'

In (30a), Nu:ru is the direct object (it controls the OP, is subject to passivization). In (30b) we see that a reflexive pronoun is able to appear in the slot that Nu:ru occupies in (30a). Thus (30b) attests to the ability of a direct object to undergo reflexivization. The antecedent in this example is the subject of the verb (mw-a:na controls the SP on the verb, can be demoted via passivization, etc.).

Consider now a simple verb stem such as -p- 'give' that may be followed by two unmarked NPs.

- (31) a. ni-m-p-el-e Ali gardará
 SP-OP-give-T₂-TV fault
 'I attributed the fault to Ali.'
- b. m-p^h-el-e ru:hu-y-a gardará
 SP-give-T₂-TV myself fault
 'I attributed the fault to myself.'

As was pointed out earlier, when a simple verb allows two unmarked NPs to follow, it is the "indirectly affected" NP that functions as direct object of the verb. Thus in (31a) it is Ali that is the direct object. And (31b) shows that a reflexive pronoun may occur in this slot. Again, the antecedent is the subject of the verb.

Consider next the benefactive applied form of the verb.

- (32) a. Aḷi Ø-m-pik-il-il-e mw-a:na ch-a:kuja
 SP-OP-cook-DA-T₂-TV child food
 'Ali cooked food for the child.'
- b. Aḷi Ø-pik-il-il-e ru:hu-y-e ch-a:kuja
 SP-cook-DA-T₂-TV himself food
 'Ali cooked food for himself.'

Recall that the beneficiary in a benefactive applied construction functions as the direct object of the verb. Thus mwa:na in (32a) is the direct object. (32b) shows that a reflexive pronoun may appear in the direct object position of the benefactive applied verbal construction. Again, the antecedent is the subject of the verb.

Consider next the causative verb.

- (33) a. n-song-esh-ez-e: chi-ti ch-oḷoko:-ní
 SP-approach-DA-T₂-TV chair window-loc.
 'I moved the chair closer to the window.'
- b. n-song-esh-ez-e ru:hu-y-a ch-oḷoko:-ní
 SP-approach-DA-T₂-TV myself window-loc.
 'I moved myself closer to the window.'

In (33a), chiti functions as the object of the causative verb; in (33b) we see that a reflexive pronoun can occupy the place of chiti in the causative construction.

The preceding examples illustrate cases where the conditions for reflexivization are satisfied: namely, the trigger is a subject and the target is a direct object. Let us now try to show that if these conditions are not satisfied a reflexive pronoun cannot occur.

We pointed out earlier that NPs in Chimwi:ni are either "marked" (i.e. preceded by a preposition or followed by a locative suffix) or "unmarked". Unmarked NPs are either direct objects or secondary objects. (This is not actually an exhaustive characterization of NPs in Chimwi:ni, but it will suffice for present purposes.) We will examine first the question of whether marked NPs can participate in reflexivization either as triggers or targets.

Consider first of all (34).

- (34) a. η -k^hod-el-e na Ali ka tarafu ya mw-a:ná
 SP-talk-T₂-TV to about child
 'I talked to Ali about the child.'
- b. * η -k^hod-el-e na Ali ka tarafu ya ru:hu-y-á
 SP-talk-T₂-TV to about myself
 'I talked to Ali about myself.'
- c. η -k^hod-el-e na Ali ka tarafu-y-á
 SP-talk-T₂-TV to about me
 'I talked to Ali about me.'

mwa:na in (34a) is a marked NP, being part of a prepositional phrase. That mwa:na is not the direct object of the verb -ko:d- 'talk' is reflected by the fact that mwa:na cannot control an OP on the verb and cannot be passivized. (34b) illustrates the fact that a reflexive pronoun co-referential with the subject of -ko:d- cannot be substituted for mwa:na. A marked NP cannot be the target for reflexivization. The only thing that is permitted is simple pronominalization, as in (34c).

Further evidence that a marked NP cannot be the target of reflexivization is provided by the data in (35).

- (35) a. Ali \emptyset -kod-el-e wana:faxi ka mw-a:limu
 SP-talk-T₂-TV lies to teacher
 'Ali told lies to the teacher.'
- b. Ali \emptyset -m-kod-esh-ez-e mw-a:limu wana:faxi
 SP-OP-talk-DA-T₂-TV teacher lies
 'Ali told the teacher lies.'
- c. *Ali \emptyset -kod-el-e wana:faxi ka ru:hu-y-e
 SP-talk-T₂-TV lies to himself.
 'Ali told lies to himself.'
- d. Ali \emptyset -kod-esh-ez-e ru:hu-y-e wana:faxi
 SP-talk-DA-T₂-TV himself lies
 'Ali told himself lies.'

The expression -kod- wana:faxi 'tell lies' requires the use of the preposition ka in front of a NP that refers to the person to whom the lies are told. The causative form -kod-esh- wana:faxi takes a direct object referring to the individual to whom the lies are told. In (35a) mwa:limu is marked by the preposition ka, and (35c) shows that it is ungrammatical to introduce a reflexive pronoun in this position. In

(35b) mwa:lumu is an unmarked NP functioning as the object of the verb -ko:d-esh- (note that mwa:limu controls the OP; furthermore, it can be passivized). From (35d) we can see that it is possible to introduce a reflexive pronoun in the position occupied by mwa:limu in (35b). The contrast between (35c) and (35d) thus clearly supports the claim that a marked NP cannot be the target of reflexivization.

In normal word order, marked NPs follow unmarked NPs. Thus it is not possible to show that a marked NP is unable to trigger the reflexivization of an unmarked NP, unless we have recourse to constructions where the marked NP is moved out of its ordinary position. We cite just one case--namely, that shown in (36).

- (36) *kake Nu:ru, m-p^hik-il-il-e ru:hu-y-é
 at Nuru's SP-cook-DA-T₂-TV himself
 *'At Nuru's place, I cooked for himself.'

(36) illustrates that the direct object of the benefactive applied verb -pik-il- 'cook for' cannot be a reflexive pronoun co-referential with a marked NP occurring in sentence-initial position. The ungrammaticality of (36) could obviously be explained in various ways. For instance, one could say that reflexivization operates prior to the rule that moves kake Nu:ru to sentence-initial position, consequently Nu:ru is not in a position to trigger reflexivization at the point where the rule operates. Or one could claim that only subjects trigger reflexivization and Nu:ru is not a subject in (36). Since there are alternative explanations, examples such as (36) are inconclusive. There are not, however, any better examples that bear upon the question, so matters will have to be left as they stand.

Let us turn now to the question of whether secondary objects--i.e. unmarked NPs that are not direct objects--can be triggers or targets of passivization. Consider (37) first of all.

- (37) a. ni-m-p-el-e Hamadi Hali:má
 SP-OP-give-T₂-TV
 'I gave Halima to Hamadi (e.g. father giving his daughter to someone in marriage).'
 b. *m-p^h-el-e Ali ru:hu-y-á
 SP-give-T₂-TV myself
 'I gave myself to Ali.'

Note: (37b) is grammatical in the sense 'I gave my soul to Ali.'
Recall that ru:hu has the literal meaning 'soul'.

The verb -p- 'give' allows two unmarked NPs to follow. These NPs may both refer to humans, as (37a) shows. The direct object of verbs such as -p- is always the NP indirectly affected (the recipient in the present example). This point was demonstrated earlier in the paper. Notice that (37b) is an impossible sentence in Chimwi:ni. One cannot say things like -p- ru:huya 'give myself (to s.o.)'. A reflexive pronoun may not occupy the slot of the secondary object. The reflexive pronoun can only occupy the slot of the direct object, as in (31b).

The applied verbal construction can also be used to demonstrate that secondary objects cannot reflexivize. Examine the data in (38).

(38) a. Ali Ø-m-pash-il-e mw-a:na dawa
SP-OP-apply-T₂-TV child medicine.

'Ali applied medicine to the child.'

b. mw-a:na Ø-pash-il-e ru:hu-y-e dawa
child SP-apply-T₂-TV himself medicine

'The child applied medicine to himself.'

c. Ali Ø-m-p^hak-il-il-e mw-a:na dawa
SP-OP-apply-DA-T₂-TV child medicine.

'Ali applied medicine to the child for me.'

d. *mw-a:na Ø-m-p^hak-il-il-e ru:hu-y-e dawa

'The child applied medicine to himself for me.'

The verb -pak- 'apply' permits two unmarked NPs to follow it. The recipient of the action--mw-a:na in (38a)--functions as the direct object of the verb. (38b) establishes the fact that a reflexive pronoun may play the role of the recipient; this observation conforms to the claim that direct objects are possible targets for reflexivization. (38c) illustrates the use of the applied verb -pak-il- 'apply for'. The beneficiary NP is the direct object of the applied verb; in (38c) the beneficiary is the first person, indicated by the particular OP selected. (The first person marker is /ni/ underlyingly, but usually shows up as a homorganic nasal accompanied by aspiration of a following voiceless stop.) (38d) establishes that a reflexive pronoun may not fill the slot of the recipient of the action in the applied verbal construction. The recipient is not the direct object

of the applied verb. Thus the impossibility of a reflexive pronoun as recipient in (38d) will follow automatically if the target of reflexivization is required to be a direct object.

We have given some evidence that secondary objects do not serve as targets of reflexivization. Once again, it is difficult to show clearly that secondary objects do not serve as triggers of reflexivization. The normal word order of Chimwi:ni clauses is: subject - verb - direct object - secondary object(s) - marked NP(s). Thus given that only direct objects are targets for reflexivization, secondary NPs cannot ordinarily precede a possible target. Thus while there is no clear-cut evidence that secondary objects cannot serve as triggers, there is no clear-cut evidence that they can either. The only NPs that are attested as triggers are in fact subject NPs.

There is, however, one class of apparent counterexamples to the proposed constraints on reflexivization in Chimwi:ni; a brief examination of this class of sentences is in order. Note the sentences in (39).

- (39) a. Ali_i Ø-m-big-ish-iz-e mw-a:na_j ru:hu-y-e_j
 SP-OP-hit-DA-T₂-TV child himself
 'Ali made the child hit himself.'

- b. Ali_i Ø-m-kahat-ish-iz-e I:sa_j ru:hu-y-e_j
 SP-OP-hate-DA-T₂-TV himself
 'Ali made Isa hate himself.'

The sentences above are unambiguous. The reflexive pronoun refers not to the subject of the causative verbs 'cause to hit' and 'cause to hate', but rather to the direct object of the causative verb, mw-a:na in (39a) and I:sa in (39b). Thus these sentences appear to wildly violate the constraints that we claimed to be operative in the language. In (39) the trigger is a direct object of the verb and the target is a secondary object. Compare (40) which makes the grammatical relations involved clear.

- (40) a. Ali Ø-wa-big-ish-iz-e w-a:na Nu:ru
 SP-OP-hit-DA-T₂-TV children
 'Ali made the children hit Nu:ru.'

b. w-a:na wa-big-ish-iz-a a:ru

children SP-hit-DA-T₂-TV

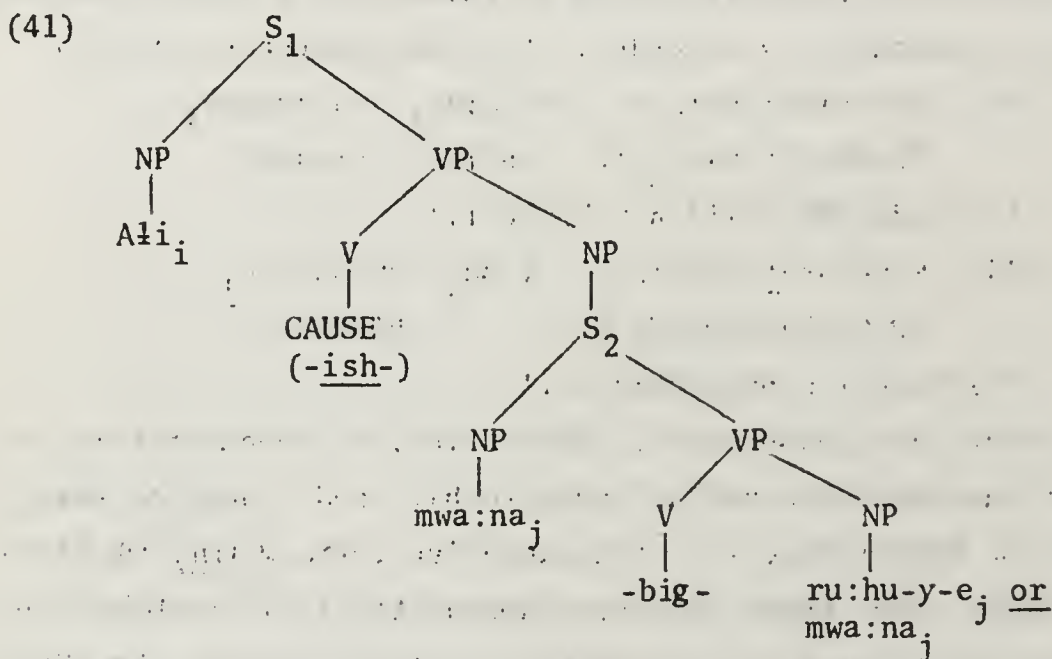
'The children were made to hit Nuru.'

c. *Nu:ru Ø-big-ish-iz-a w-a:na

Note: (40c) is ungrammatical if Nu:ru is understood as being the individual hit rather than the one made to hit someone.

It is clear that in (40a) wa:na is the direct object and Nu:ru a secondary object. wa:na controls the OP on the verb in (40a), and wa:na can be passivized, as in (40b), whereas Nu:ru cannot be passivized, as shown in (40c).

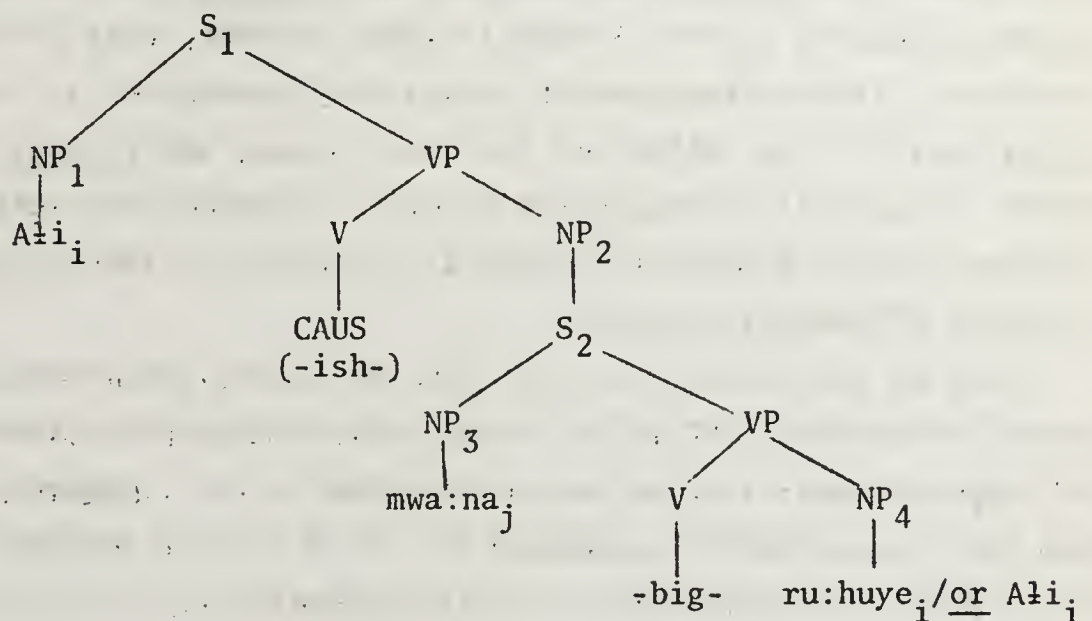
Although (39) appears to be a counterexample to our claims, it actually can be argued that these sentences support what we have said about reflexivization--provided one accepts the proposal that causative verbs be derived from a bisentential source. That is, a sentence such as (39a) would be derived from a deep structure roughly like (41) below:



Given a configuration of this sort, a rule will be required that unites the verb of S₂ with the causative verb of S₁, producing ultimately -big-ish-. Furthermore, this merger of the verbs must result in the "union" of the two clauses into one clause, with the subject of the lower clause assuming the role of direct object of the verb -big-ish-. (Within a "clause union" approach to Chimwi:ni causatives, it would typically be the subject of the lower clause that would function as direct object of the causative verb.)

Notice now that in (41) the trigger of reflexivization is a subject and the target is a direct object. Thus the claimed conditions on reflexivization are satisfied by the structure prior to clause union. As long as reflexivization is permitted to apply to such pre-clause union structures, the conditions on reflexivization proposed here can be maintained. Furthermore, we can explain why (39a) cannot mean 'Ali_i made the child_j hit himself_i'. To obtain such a meaning, we would have to have a deep structure such as (42).

(42)



At this level of structure, the conditions for reflexivization are not satisfied. We do not have two co-referential NPs within the same clause. Clause union will join the verb of the lower clause to the causative element of the higher clause. As a consequence, mwa:na will become the direct object of the derived causative verb and NP₄ (ru:huye or Ali, depending on how one derives reflexive pronouns) will assume the position of a secondary object of the causative verb. Once again the conditions for reflexivization are not satisfied, since the target (NP₄) is not a direct object. Consequently, reflexivization is (correctly) blocked.

The apparent violations of the conditions for reflexivization in causative constructions can be even more extreme, as the data in (43) show.

- (43) a. Ali Ø-m-lanjal-ish-iliz-e Mu:sa mw-a:na ru:hu-y-e
 SP-OP-look-DA-DA-TV child himself
 'Ali made the child_i look at himself_i on Musa.'

b. Ali Ø-m-kahat-ish-iliz-e I:sa mw-a:na ru:hu-y-e

SP-OP-hate-DA-DA-TV child himself

'Ali made the child_i hate himself_i on Musa.'

The examples in (43) involve the applied form of the causative verb. The direct object of this particular verbal construction is (as was shown at the beginning of the paper) the beneficiary NP: Mu:sa in (43a) and I:sa in (43b). The remaining post-verbal NPs are secondary objects. Notice that both mwa:na (the trigger) and ru:huye (the target) are secondary objects in (43). This is true, however, only of the surface structure. If the bisentential analysis of causatives is accepted, then mwa:na would be the subject of the lower clause and ru:huye the direct object. Thus (43) is consistent with the proposed restrictions on reflexivization, provided reflexivization is sensitive to the pre-clause union structure of causative verbs.

What we have seen, then, is that the clause union analysis of causative verbs will allow us to explain the only cases known to us where the proposed conditions on reflexivization are not (apparently) satisfied. That these cases can be accounted for in an elegant fashion lends support to the proposed restrictions on reflexivization, and also gives some support to the clause union analysis of causatives itself.

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AUTHENTICITY AND THE CHOICE OF A NATIONAL LANGUAGE
THE CASE OF ZAIRE*

Eyamba G. Bokamba

0. Introduction

Sociolinguists and other social scientists generally agree that language is the major medium of social communication between sub-systems as well as the médium for expressing values, cultural heritage, and national identity (cf. Haugen, 1966, 1968; Fishman, 1968, 1972; Rustow, 1968). As such, language serves as one of the most important integrating forces within a political system. The Republic of Zaire (formerly the Democratic Republic of the Congo), like most of the Sub-Saharan African states, has no indigenous language of "national integration"; to achieve this end, however, the country has adopted French as the official language.¹

This paper will be concerned with what is likely to become one of Zaire's most burning issues within the next ten years: the choice of a national language. It is argued here, first, that the use of French as the official language and the medium of instruction in all levels of formal education² is incompatible with the objective realities of language use in Zaire, and contrary to the philosophy of authenticity espoused by the country. In the course of this discussion it is shown that French, compared to either Lingala or Swahili, is the monopoly of a small ruling Zairian elite and cannot, therefore, constitute the language of national development consonant with the philosophy of recourse to authenticity. Second, it is argued that the adoption of one of Zaire's two dominant languages: Lingala and Swahili, as a national language would be highly conducive to national integration and real educational development. Finally, a general language policy is proposed, and practical methods for its implementation are outlined.

1.0 Authenticity and its Raisons d'Etre

Since the arguments to be presented below depend in important respects on the socio-political philosophy of authenticity, it is necessary for us to briefly discuss its origin and current application in the Republic of Zaire in order to better situate our presentation.

1.1 Origin of Authenticity in Zaire. The exact date on which the philosophy of authenticity first appeared on the Zairian political scene remains a matter of dispute. There is strong indication, however, that its genesis can be dated to a conclave of Congolese leaders held at the town of N'Sele (located at 75 kilometers from Kinshasa) between May 2-5, 1967. One of the major objectives of that meeting was to review the social, political, and economic situation of the nation following the two successive civil wars³, and take appropriate measures for its reconstruction. During that conclave, the Congolese leaders, headed by President Mobutu Sese Seko Kuku Ngbendu Waza Banga, decided to found the "Mouvement Populaire de la Revolution" (MPR) and establish it as the state's sole and ruling political party. The proceedings of that meeting were subsequently published on May 19, 1967, as the Manifesto of N'Sele (Le Manifeste de la N'Sele).

This document sets forth the MPR's guiding principles and theoretical foundations, and outlines three main objectives for the ruling party: (1) re-establishment of the national government's authority throughout the country and winning the respect of foreign powers; (2) achievement of economic independence, financial stability; and social development; and (3) the promotion of the well-being of every citizen through a program of social justice with particular emphasis on the upgrading of labor and labor force (Manifeste, 5; Dubois, 1973). All three objectives, according to a written speech attributed to the late Minister of Foreign Affairs and Director of the Political Bureau of the MPR, Citizen Mandrandelle Tanzi, were to be attained through the vigorous application of a policy of "authentic nationalism" (Kangafu-Kutumbagana, 1973).

Even though no explicit mention is made of the term authenticity in the N'Sele Manifesto proper, the definition of this concept given by President Mobutu at his United Nations General Assembly speech on October 4, 1973; closely parallels the last paragraph of the preamble of the N'Sele Manifesto⁴. According to President Mobutu, recourse to authenticity is:

- (1) ...une prise de conscience du peuple zairois de recourir à ses sources propres, de chercher les valeurs de ses ancêtres afin d'en apprécier celles qui contribuent à son développement harmonieux et naturel. C'est le refus du peuple zairois d'épouser aveuglement les idéologies importées. C'est l'affirmation de l'homme zairois ou de l'homme tout court, là où il est, tel qu'il est avec ses structures mentales et sociales propres. Le recours à l'authenticité n'est pas un nationalisme étroit, un retour aveugle au passé, mais il est, au contraire, un instrument de paix entre les nations, une condition d'existence entre les peuples, une plate-forme pour la coopération entre les états. Car, l'authenticité est non seulement une connaissance approfondie de sa propre culture, mais aussi un respect du patrimoine culturel d'autrui (Discours, 1973:2)⁵.

Whatever may have been the exact origin of authenticity as a political philosophy is not as important here as the fact that this concept has been so eagerly embraced by most of the Zairian people. The question that arises at this point is why this should be the case. That is, why is authenticity so popular among Zairians, and what led the Congolese leaders to propound it as a socio-political doctrine in 1967? The answer to these questions will show that even though authenticity has acquired rather new and doctrinary dimensions only during President Mobutu's administration, the concept itself is not new in the Zairian political history.

1.2 Raisons d'être of authenticity. The reasons underlying the great appeal of authenticity, as Kangafu-Kutumbagana (1973) and Dubois (1973) correctly observe, are not difficult to find. Of the various reasons that can be cited in this respect, at least four of them can be singled out as basic. First, unlike other philosophical concepts, authenticity is neither esoteric nor abstruse, but immediate, relevant, and practical in that it offers something to everyone (Dubois, 1973). For the intellectual, authenticity is a foundation for a new sense of pride in himself, his people, and in their history and artistic accomplishments (Kangafu-Kutumbagana, 1973; Dubois, 1973). For the common man, it provides not only a frame of reference, but also a philosophical context within which he can identify in that through authenticity he can relate to the cultural heritage of which he is inextricably a part. Further, it can provide him the needed equilibrium as he faces the contemporary culture which creeps more and more into his daily life.

Second, authenticity provides all Zairians with a new system of thought which permits a complete reexamination and a "gratifying reappraisal" of the multiple facets of their lives which colonialists and Christian missionaries had condemned out of hand (Brausch, 1961; Anstey, 1966) and which Zairians themselves had discarded as a result of a feeling of inferiority complex and shame (Mabika-Kalanda, 1965; Kangafu-Kutumbagana, 1973; Dubois, 1973). The fact that African culture in general was considered barbaric by both colonialists and missionaries, while at the same time European museums (e.g. Tervuren) were hoarding precious African artistic crafts, is well known and needs no further comment in this paper (cf. Osei, 1968; Williams, 1974). Third, authenticity is a concept that can be applied to many things and serve various purposes. For instance, it can be used to justify a government's policy such as the Zairianization of retail businesses in 1974 and the change of "Christian" names (cf. section 1.2)⁶; or it can be used to explain a nation's characteristics.

The fourth and final basic reason for the great appeal of authenticity in Zaire is that Zaire needed in 1967, and needs today, a rallying cry for uniting the most dynamic elements of the country in the difficult task of nation-building. This is particularly so in view of the mental alienation or "déracinement" which Zairians were subjected to for some eighty years of colonialism and brainwashing (cf. Mabika-Kalanda, 1965), and in view of the first five years of chaotic independence that they experienced before the ascendance of President Mobutu to power. Put differently, Zaire needed in the 1960's a force that could counter-balance the forces of ethnicity, cultural alienation, and regionalism which seriously, among other forces, threatened the territorial integrity of the nation during its first five years of political freedom. The philosophy of return to authenticity turned out to be that force.

These four basic reasons, which indicate important concerns for the harmonious development of what is today the Republic of Zaire, have been dealt with by the nation's elite at least since the 1950's. The late Prime Minister P.E. Lumumba first discussed these problems in a speech delivered at the Pan-African Congress held in December, 1958, at Accra, Ghana. From that time on until his assassination on

January 17, 1961, he never failed to emphasize the importance of pride in Congolese and African cultural heritage, as well as the necessity for national unity in the Congo. Lumumba's book (1961) and speeches edited by Jean Van Lierde (1963) address themselves, among other things, to these basic issues. The second Congolese known to us to have addressed himself to these problems before the ascendance of President Mobutu to power was Mabika-Kalanda in his aptly entitled book, La Remise en Question: Base de la Décolonisation Mentale (1965).

Mabika-Kalanda's thesis was basically that in order for the Congo to make genuine progress in all spheres of development, the Congolese people, especially the elite, must define themselves vis-à-vis the external world by a critical reappraisal of their cultural heritage and that of the outside world. This critical evaluation involves not only the rejection of many blindly imported western ideas in the areas of education, socio-cultural relations, and economic development, but also the repudiation of certain Congolese and African cultural concepts which are incompatible with today's world progress. This is essentially the thesis picked up by President Mobutu eight years later. Similar concerns, even though less forceful and detailed in content than Mabika-Kalanda's, were expressed by the "Union Générale des Etudiants Congolais (UGEC)" at their first congress held in Kinshasa in May 1961 when they demanded that the national government develop a national culture via the organization of cultural events. Thus even though no other Congolese before 1967 ever used or viewed authenticity as a political doctrine, the perception of the problems which led the Mobutu administration to propose this concept and give it doctrinary dimensions was shared by other Congolese intellectuals. This fact constitutes one of the major underlying reasons for the popularity of authenticity.

1.3 Application of Authenticity. Once the MPR and President Mobutu decided that the country had to rid itself of all vestiges of the colonial past and restore to the Zairian people a sense of pride in their own cultural heritage through a program of Authentic Nationalism, vast horizons opened up for its application throughout the entire nation. Most of the changes which occurred as a result of the authenticity campaign were expected, because they were a continuation of

changes that had been taking place since the beginning of 1966, i.e. a year before the official birth of authenticity.. For example, in May 1966, most of the major cities in the country which were re-baptized by the Belgian colonialists regained their traditional names. The capital city, which had been renamed Léopoldville in the late 1920's in honor of King Leopold II of Belgium, regained its traditional name of Kinshasa; Elisabethville became Lubumbashi; Stanley-ville became Kisanangani; Coquilhatville became Mbandaka; Luluabourg became Kananga, etc.⁷ Names of streets, parks, mountains, and river falls bestowed by Belgians in honor of their European predecessors or leaders were also changed accordingly. Monuments built in honor of colonialists were also dismantled one after another. Similar changes embraced part of the economic structure. For instance, all major companies operating in the country in 1966 were required to have their headquarters in Kinshasa; and others, such as the giant Union Minière du Haut Katanga and its subsidiaries, were nationalized. These changes were not only expected by the population, but they were also highly welcomed.

The only changes that were unexpected and seemed to have been received lukewarmly by the population occurred in 1971. There were at least three major changes during this period. The first change came on January 4, 1971, when the National Parliament passed a law making the MPR (Mouvement Populaire de la Révolution) the nation's highest political authority exceeding the Presidency, the Government, the Parliament itself, and the Supreme Court. What this meant was that whatever decision the MPR took through its political bureau had force of law, thus making the National Parliament a rubber stamp. The second change occurred on August 6, 1971, when the Government, following a conference with the national professors for higher education, abolished the three universities of the Congo, viz. Louvanium (at Kinshasa), the State University of the Congo (Lubumbashi), and the Free University of the Congo (Kisangani), as separate institutions and placed them under a single administrative umbrella as the "Université Nationale du Zaïre" with three campuses. The third major change in 1971 occurred on October 21, when the political bureau of the MPR announced that the country would no longer be called the Democratic Republic of the Congo or Congo-Kinshasa, but as the Republic of Zaïre.⁸ A number of other changes took place in the country

after 1971, but those outlined here are the most tangible results of the authenticity campaign.

2.0 Authenticity and the Choice of a National Language

Ironically, while the Republic of Zaire under the leadership of President Mobutu Sese Seko has successfully dismantled one colonial monument after another, and has attempted to efface other vestiges of the colonial past, it has left one important monument thus far untouched, viz. French. French is used as the official language of the country and the medium of instruction in all levels of formal education. Clearly, this language policy is contrary to the philosophy of authenticity as defined in (1) and discussed above in so far as it denies Zairians the opportunity for self-expression. In other words, given the fact that language is the medium of transmitting a people's culture and of expressing national identity, how can a foreign language such as French be used to reveal the wealth of political, economic and social ideas and values of Zaire's past? To express one's culture in borrowed terms is not only unauthentic, but also amounts to cultural bankruptcy. How does one explain this blatant inconsistency in the application of the philosophy of authenticity, especially in view of the fact that President Mobutu, like his predecessor, the late P.E. Lumumba, is fully aware of the cultural role of a language?

The answers to these questions lie partly in certain myths about the eminence and popularity of French in Zaire as elsewhere in the so-called francophone Africa, and partly in the socio-political problems associated with the selection of a national language in any multilingual society. We consider these aspects of the problem immediately, beginning with the question of myths.

2.1 Myths About the Importance of French.

The importance and superiority of French as the medium of education in francophone Africa, like that of English in anglophone Africa, has been exaggerated for so long that many African leaders have come to accept these exaggerations as God's truth. President Mobutu, for instance, was reported by the press to have stated, during an official visit in Paris, at a reception organized in his honor by the late President Pompidou, that Zaire

(whose estimated population was 24,000,000 at that time) is the second largest francophone country in the world after France. While such a statement, if it was in fact made by the President, cannot be taken as an accurate reflection of what most educated Zairians believe about the popularity of French in Zaire, it is nonetheless indicative of the existence of a big myth about the use of this language in the country. This myth is in part attributable to the subcategorization of Africa by colonialists and political scientists into three major inter-regional linguistic groupings: (1) Anglophone or English-speaking Africa, (2) Francophone or French-speaking Africa, and (3) Portuguese-speaking Africa.

These terms, which appear to have been introduced in the political literature in the early 1960's as convenient and polite terms for what used to be referred to as "British Africa", "French and Belgian Africa", and "Portuguese Africa" in pre-independent Africa, are highly deceptive for linguists and sociolinguists considering that they do not reflect the objective realities of the use of the said languages in the designated areas.⁹ As Alexandre (1971) correctly observed, it is probable that more than 90 percent of today's Africans have no command whatsoever of either French or English. The same observation applies to Portuguese in the former Portuguese colonies. For the Republic of Zaire, one can say with very little hesitation that less than 10 percent of the population is conversant in French considering that its use as the medium of instruction in all levels of formal education dates as recently as 1958.¹⁰ The segment of the Zairian population that has a good command of French corresponds almost exactly to the number of high state "Fonctionnaires" and/or secondary school graduates, and university graduates.¹¹ The total population of these groups cannot exceed 10 percent of the country's adult population by any estimate; this being the case, we are left with 90 percent of the population non-conversant and illiterate in French.

The second myth is that French is the language of culture and civilization; thus if one wishes to be considered educated and cultured, one must not only know French but he must also speak it correctly, preferably with a Parisian accent. This myth is taken so

seriously that many Zairian teachers educated in non-French speaking countries of Europe and the Americas find themselves frustrated when their students pay less attention to their lectures because of mistakes they make in class or because of their "funny" French accent.¹² Upper class secondary school students, especially those in the last three years, and university students in Zaire judge an instructor's ability and level of education not in terms of his knowledge of the subject matter, but rather in terms of his command of French. This appears to be also the case in other francophone African states.

The observation below quoted by Fishman (1971: 37-38) from a Dar-es Salaam newspaper (The Nationalist, 20 December, 1968) reflects what a number of other researchers (cf. Birnie and Ansre, eds., 1968; Gbedemah, 1971; and Gorman, 1974) have found to be a common attitude among educated anglophone Africans vis à vis English:

- (2) There are leaders and bureaucrats who still look upon the English way of life as a superior culture, and, therefore English as the language of 'culture'. They seize every opportunity to speak English and flaunt their knowledge of English before peasants and workers in the fields and offices. Some of them will even proudly assert that they can only think in English!! This is one manifestation of cultural bankruptcy... [Others] who know little English nevertheless speak English after the manner of expatriate Englishmen. They do so because they subconsciously wish they were Englishmen.

That such an attitude on the part of the African elite is uncalled for and detrimental to authentic educational and cultural developments needs no further comment here. The point that should be made here is that the elite of a country like Zaire, which is currently experimenting with a **very** interesting approach to socio-cultural development, cannot maintain the type of attitude just described and yet make a serious commitment to the philosophy of return to authenticity.

Finally, the other myth which accounts in part for the continuation of French as the official language and medium of instruction in Zaire is that formal education is thought to be possible only in an international language such as English, French, German, Portuguese, Russian, and Spanish. The argument that perpetuates this mediaevalian attitude is what sociolinguists refer to as the "Languages of Wider Communication" argument (cf. Fishman, 1971). Specifically, in

addition to the unifying and expressive functions of language that I have alluded to in the previous section, language is viewed as performing two other important functions, viz. communicative and participatory. A language is said to adequately serve the communicative function if and only if it is "modernized". Language modernization, according to Ferguson (1968), is measured in terms of

- (3) ...the development of intertranslatability with other languages in a range of topics and forms of discourse characteristics of industrialized, secularized, structurally differentiated, 'modern' societies.

In other words, the process of modernization may be thought of as consisting of two aspects: (a) the expansion of the lexicon or vocabulary of the language by new words and expressions, and (b) the development of new styles and forms of discourse as to enable the language to become the equal of other developed languages as a medium of national and international communication. Modernization alone, it is generally argued, is not enough; a language must also allow its speakers to participate in and learn about scholarly developments that are taking place elsewhere in the world. It is partly because of this reason that countries which have highly developed languages, in the Ferguson (1968) sense, find it necessary to teach other international languages in their schools. We shall return to this point and question Ferguson's definition in section (2.2).

Thus the argument of those (former colonialists as well as some educated Zairians) who have opposed the use of Zairian vernaculars in education in preference for the retention of French in this domain is that Zaire, just like many other Sub-Saharan African states, does not have any well-developed language(s) of wider communication that can adequately serve the communicative and participatory functions discussed above. This being the case, the argument goes, a language policy that calls for the use of vernaculars in education will impede the progress and the integration of Zairian people into the modern world. The same argument has been used in other francophone African states, and in anglophone states with respect to the use of English as a medium of instruction (cf. Unesco, 1953a, 1953b; Lewis, 1962; Alexandre, 1971; Spencer, 1971; and Gorman, 1974).

2.2 Nationalism and Language Planning. While it is undeniable that Zairian languages, as many other African languages, have yet to elaborate the kind of vocabulary that will permit the expression of certain concepts, technical and otherwise, the argument that these languages cannot adequately serve the communicative function is linguistically unfounded. The conclusion that French must, therefore, serve both as the medium of instruction and the official language of the country is equally unwarranted for the same reasons. And that is, first, the development of a language via the expansion of its lexicon and idiomatic expressions as well as the acquisition of new styles of discourse as to enable it to become an effective medium of national and international communication is directly proportional to the demands placed on it by its speakers. There is no natural language, to our knowledge, which has failed to adequately serve the communicative function of its speakers. This is because speakers of languages borrow needed vocabulary from other languages and/or coin new terms from existing ones.

Second, the fact that a nation has a national languages which is so-called underdeveloped or less extensive in its lexicon compared to international languages like English, French, and Russian, does not necessarily mean that such a nation will be isolated from developments occurring elsewhere in the world even if this language is the only one used as the medium of formal education. The fact of the matter is that a nation may have an indigenous national language which serves as the medium of instruction and internal governmental transactions, and also use a second language for international affairs. This language and other international languages, as will be proposed in section (3.0), can be taught as subjects in the school system. Thus arguments against the adoption of a Zairian national language which are based on a Fergusonian view of language development have no validity whatsoever.¹³

Regardless of how one wishes to view language development or modernization, language planning, just like authenticity, has always been one of the universally recurring components of nationalism (cf. Fishman, 1972). As fishman (1972:44-55) points out, the view that a people's individuality resides in its language does not only

date as far back as Biblical times when it was regarded as one of the components of the holy trinity (holy people, holy land, holy language), but language has also been viewed as the factor which provides a link with a people's glorious past and authenticity. While a people's past can be arrived at via an examination of their history, the essence of a nationality of such a people cannot. And this is because, to quote Fishman (1972: 46),

- (4) This essence exists over and above dynasties and centuries and boundaries; this essence is that which constitutes the heart of the nationality and which leads to its greatness; the essence of a nationality is its spirit, its individuality, its soul. This soul is not only reflected and protected by the mother tongue but, in a sense, the mother tongue is itself an aspect of the soul; a part of the soul, if not the soul made manifest.

In view of Zaire's approach to nationalism, which is not different in kind from previous cases of nationalism, one would expect that the emphasis on authenticity would not only make it difficult for French to be maintained as the official language and medium of formal education, but also that it would facilitate the selection of a national language. The change in language policy is even urgently called for in the educational domain, as we shall demonstrate in section (2.4). However, as of today, no language policy calling for the use of the four Zairian *linguae francae* (Kikongo, Lingala, Swahili and Tshiluba) as the media of education, or the adoption of one of them as the national language has not been implemented. The question that naturally arises at this point is, why has not the Zairian Government done this? The answer to this question lies, in addition to what we have termed myths about the importance of French, in the complexity of the language situation in Zaire and the difficulties inherent in the selection of a nation-wide language in a multi-lingual society.

2.3 The Language Situation in Zaire. The first difficulty that a language policy-maker will encounter in Zaire is the multiplicity of the so-called "national languages". In addition to several other major and minor languages that are spoken in Zaire, the following: (1) Lingala, (2) Swahili, (3) Tshiluba, and (4) Kikongo, have been recognized since colonial times as national languages for certain governmental functions such as elementary education (kindergarten to third grade), proceedings

of the lower courts of justice, radio and TV broadcasting, and local government (township and village levels) administration. Their distribution in the six original Provinces of Zaire and the federal district of Kinshasa is, according to Bokula¹⁴, as in Table I, where an "x" means that the language is widely and commonly spoken in the region.

Table I: Zairian National Languages

Province	Lingala	Swahili	Tshiluba	Kikongo
Kinshasa	x			x
Bakongo (Bandundu)				x
Equateur	x			
Orientale	x	x		
Kasai			x	
Kivu		x		
Katanga		x	x	

Each of these four languages originated from one province or a region that may include two co-terminous provinces. Lingala originated from the Equateur province; Swahili entered the country from the East African coast via the Oriental and Kivu provinces as a result of commercial intercourse with the inhabitants of East Africa; Tshiluba originated in the Kasai and Katanga provinces; and Kikongo from the former province of Leopoldville, which originally included the capital city but is now divided into two new provinces: Bas Zaire and Bandundu. As can be seen from Table I, of these four national languages only Lingala and Swahili are spoken outside of their regions of origin. As a result of this distribution, Tshiluba and Kikongo have come to be identified as ethnic languages; thus if the choice for a national language were to be made today, Lingala and Swahili would be, from a purely distributional basis, the only candidates. What Table I does not show, however, is the fact that Lingala is much more widely spoken and that its influence throughout the country is unparalleled as will be discussed momentarily.

2.4 Some Practical Considerations. But the choice of a national language for the purposes of education and governmental transactions, as anyone who has dealt with this problem will readily admit, is not so

simple. There are several factors and practical problems that must be seriously considered before a final decision can be made on what language to elevate to the national level; some of these problems are of socio-political order, emotional, others are economic. Put differently, the choice of a national language in a multilingual society will have social, political and economic implications. A sound language policy must, therefore, take all of these factors into consideration.

From the socio-political point of view, the first factor that a language planner or policy maker must consider is "language attitude". In developing a language policy for a multilingual society such as Zaire, where a colonial language, French, has official status and four indigenous languages have semi-official status in both education and governmental services, there are two questions that must be asked in this respect. The first question is, does the population wish to elevate one of its own languages as a national language? Second, if it does, which one of the four languages mentioned above should be accorded this national status? Both of these questions are important because unless the population is prepared to undertake this task, an imposed decision on the part of the ruling class will last only as long as that class is in power. Further, if the population does not consent to the choice of the national language made by the government, the implementation of the policy will be rendered very difficult, if not doomed from the start.

The people of Zaire, however, have in part answered both of the above questions; and have thus simplified the initial task of the language policy-maker. Specifically, since the early days of the Zairian political independence there appears to be a general consensus, judging from the speeches and writing of many Zairian intellectuals (cf. Van Lierde, ed., 1963; Kahombo-Mateene, 1967; Kajiga, 1967, 1968; Bokula, 1970; Mutanda, 1971; Kashamura, 1971a,b), that the Zairian leaders wish to replace French as the official language and medium of instruction of the country by one of their own languages. The first indication for the dispensability of French as the official language of what is today the Republic of Zaire came from the late Prime Minister P.E. Lumumba in a public speech made in Kisangani (formerly Stanleyville) on July 19, 1967, when he said, in reference to the africanization of the army, that:

- (5) And the one who is appointed today chief commissioner or commander of the 'Force Publique', even if he does not know French, he will speak in Swahili or Lingala: we have our own national Flemish. (Van Lierde, 1963: 246)-- emphasis added: EGB).

Lumumba himself often addressed mass-rallies in Lingala and Swahili during his tenure of office as Premier Minister.

The second indication and first explicit call for the replacement of French by a national language came from the UGEC (General Union of Congolese Students) during their second annual congress held in Kinshasa in 1962. The students demanded not only that the national government commission a group of educational and linguistic experts to study and propose a Congolese national language that should be taught in all the secondary schools of the Republic, but they also proposed that this language be given the same weight as the teaching of French in both elementary and secondary schools. Two years later, on June 20, 1966, the powerful Catholic diocese of Kinshasa overwhelmingly approved the recommendation of its archbishop making Lingala the language of the diocese and a requirement in the training of its clergymen.¹⁵ The same year the third national conference of the national directors of education held in Kinshasa from the 22nd through the 28th of August adopted a resolution calling for the selection and establishment of a national Congolese language which should serve as the medium of instruction for the entire nation, and the teaching of the major Congolese languages in the school system (Kajiga, 1967; Bokula, 1970).

It was against this background of interest in the national language question that the linguists of the National University of Zaire (UNAZA), with President Mobutu's support, convened at the Lubumbashi Campus between May 22-26, 1974, to study and propose a general language policy to the Zairian Government. This conference, which was the first of its kind in independent Zaire and which resulted in the foundation of the National Society of Zairian Linguists, adopted several resolutions (that will be discussed in section (3.0)) concerning the promotion and teaching of Zairian languages in the school system. The conference, however, stopped short of proposing a specific national language on the grounds that the matter had not been adequately studied to permit a judicious choice at that time (Faik-Nzuji, 1974). The five instances of manifest interest in the national language issue discussed here are only a few of the known examples that demonstrate the extent to which the people of Zaire and their national leaders

have been concerned with the promotion of one of their languages to the status of national language.

Having thus answered the first question on language attitude, let us now consider the second question raised above, viz., how do we choose a national language in a situation such as that of Zaire where two languages, Lingala and Swahili, appear to have the same distribution in the country? The answer to this question depends on at least three important factors: (1) the actual percentage of the population speaking each language (2) the easiness with which one language can be adopted over another or adoptability of a language; and (3) the socio-political benefits to be accrued to the population. These factors may be considered as part of the prerequisites for a sound language policy formulation.

Specifically, what the first prerequisite means is that the decision on which language to elevate to the national level must be based in part on the extent to which the segment of the population speaking one language actually exceeds that of the other. The only way to get this information is to take a language census in spite of the inherent problems that such census have (cf. Kachru, 1975). As of today, there are no statistics on any of the four major Zairian languages apart from some impressionistic estimates which tend to favor Lingala over Swahili (Bokula, 1970). In the absence of such documented statistics, therefore, the first prerequisite must be to survey these languages. This may be one of the reasons why the UNAZA conference at Lubumbashi refrained from proposing one of the two languages above as a national language.

The second prerequisite refers to four important factors: (1) the availability of trained cadres that can be used in teaching and modernizing the selected national language; (2) the availability of teaching materials which will facilitate the initial implementation of the language; (3) the extent to which the language is considered to be established as a lingua franca; and (4) the degree of possible antagonism or resistance that might be generated vis-à-vis this language. That is, the adoptability of a language is a particularly important, if not the most important, prerequisite in that it has both socio-political and budgetary implications. For instance, the question of language attitude, as Haugen (1966) and Das Gupta (1970) have argued in the cases of

Norway and India, respectively, can determine the success of a language policy. If a significant portion of the population is resistant towards the language that is selected to become the national language, the language policy will eventually fail.

Unfortunately, as stated previously, no language attitude surveys exist in Zaire today to permit an evaluation of the prospects for the adoptability of Swahili or Lingala. But if one were to take the various pronouncements in the literature (cf. Kahombo-Mateene, 1967; Kajiga, 1967; Bwantsa-Kafungu, 1970; Bokula, 1970; Mutanda, 1971; Kashamura, 1971a, b) on this matter and the language regulations of certain institutions in Zaire today as a fair indication of the adoptability of these two languages, Lingala appears to be the most probable future national language, as Table II suggests.

Table II: Adoptability of Lingala and Swahili in Zaire

Criteria	Lingala	Swahili
1. Availability of teachers	+	+
2. Abundant written literature	-	+
3. Lingua Franca status over Zaire (assumed)	+	-
4. Official language of armed forces	+	-
5. Language of modern Zairian music	+	-
6. Language of social mobility in Zaire	+	-
7. Required language of the Diocese of Kinshasa	+	-
8. Authentically Zairian language	+	-
9. Central & Eastern African lingua franca	-	+
10. Language of the Capital city	+	-

That is, except for criteria (2) and (9), Lingala excels in all others over Swahili. While this language has a long established tradition of written literature and many related teaching aids that can be immediately adapted in the Zairian school system¹⁵, Lingala has been the dominant language of the Capital city, Kinshasa, and of the armed forces since 1929. Its expansion into the country initially followed the mobility of the army and then the national police force in the sixties, so that wherever the armed force went they introduced Lingala. In addition to this, the expansion of Lingala has been largely aided by the "Congolese"

(including Congo-Brazzaville) modern music and the Zairian leadership. Over 70 percent of the Congolese popular music is recorded in Lingala, and many children and adults who love these songs memorize the words often without knowing their meanings. And since music has been a major source of recreation in Zaire, as in many other African countries, Lingala has had an unparalleled influence throughout Zaire, Congo-Brazzaville, and surrounding African states for a long time. Over and above all this, the fact that the top leadership in Zaire since independence has been controlled by Bangala, except for the late President Kasa-Vubu, has made of Lingala a language of social and economic mobility; and has, therefore, increased its participatory function.

Whether the facts given in Table II are an accurate reflection of the adoptability of Lingala and Swahili or not, i.e. ones which may turn out to be correct if a general language census were to be taken today, is quite another matter. These facts should only be taken as suggesting the most likely course of action were a decision to be taken today on this issue without recourse to a language survey. The chances for the adoption of Lingala as a national language have been increased by the present regime's espousal of the philosophy of authenticity. That is, because Lingala, but not Swahili, is originally a "Congolese" language, its chances for adoption are far greater than those of Swahili (cf. Kahombo-Mateene, 1967; Bokula, 1970). But from a purely budgetary aspect, it appears that the country would spend more money on developing suitable teaching materials for Lingala than for Swahili.¹⁶ There is another advantage in the adoption of Swahili as the national language of Zaire: Swahili, besides being the national language of Kenya and Tanzania, is the most widely spoken lingua franca in the Central and Eastern Africa region. The adoption of Swahili would bring Zaire linguistically closer to and strengthen its economic and political ties with the nations of East Africa.

As for the third consideration on Language attitude, namely the possible benefits to be accrued to the Zairian people were they to replace French by a national language, one can say without hesitation that the benefits would be enormous. The advantages to be derived from such a language policy greatly outweigh any initial disadvantages that the implementation of the policy might have.

graduating with a degree are equally as slim as in the secondary school. A few figures here from certain critical fields of study in Zaire will suffice to illustrate this point. According to Rideout, Young, et al. (1969), from 1961 to 1968 the State University of the Congo (Université Officielle du Congo), which is now UNAZA-Lubumbashi Campus, failed 75 percent of its entrants in the School of Medecine; and 89.5 percent of those in pharmacy and agriculture in 1963-69. A similar output is reported for Lovanium (now UNAZA-Kinshasa Campus) for the same period where 81 percent of the entrants in the School of Medecine and 55 percent of those in Law failed.¹⁷ These attrition rates, according to the survey (p. 30), are the highest of all universities in Africa. The questions that come to mind upon the examination of these meager outputs of the Zairian educational system is, why is there so much attrition and what becomes of the 75 percent or so of the students who do not complete either their elementary or secondary education? That is, are these youngsters salvaged in any way or are they abandoned to the streets?

The problem of attrition rate and wastage in the Zairian educational system is very complex, and cannot be dealt with adequately within the scope of the present paper; the best that can be done here is to discuss its salient aspects. The extremely high rate of failure and wastage of students which have become characteristic of the Zairian educational system, especially in the pre-university levels, are attributable to at least two major sources which have been known to the Zairian Government since the early days of political independence from Belgium (cf. Mabika-Kalanda, 1965; Ekwa, 1965; Georis and Agbiano, 1965; George, 1966; Rideout, Young et al., 1969).

The first factor is the lack of qualified elementary and secondary school teachers. Although the Republic of Zaire has been recognized as the second leading African nation, after South Africa, in its elementary and secondary schools infrastructure with the schooling of 71.5 percent of its elementary school children, 3 percent of the secondary school, and a literacy rate of 40/45 percent (Ekwa, 1965; Georis and Agbiano, 1965; George, 1966; Rideout, Young, et al., 1969; Foster, 1971), what these impressive figures do not reveal is the tremendous imbalance that exists in the system. For instance, from 1954 to 1960 only 30 percent

2.5 The Case for a National Language in Education. From the educational point of view, the instauration of a Zairian national language would extend the privileges of education from the elitest few to the masses. The Republic of Zaire, like many other African states, considers education a top priority as reflected in the percentage of the national budget allocated to this field. The percentage of the Gross Domestic Product (GDP) allocated to education in 1959, a year before the political independence of Zaire, was merely 3.9 percent. In the 1967-68 fiscal year, however, the percentage of the GDP devoted to education raised to 21.25 percent and then to 29 percent in 1969 (Rideout, et al., 1969). This increase continued so that during the 1970-71 fiscal year, according to a public speech given by President Mobutu, 35 percent of the GDP was allocated to education. A large part of the educational budget is generally earmarked for staff salaries, with the largest part going to expatriates on whom Zaire continues to depend for over two-thirds of its post-secondary education.

The returns for the Zairian tax-payers, however, are disproportionately incommensurable to the expenditures. Rideout, Young, et al. in their recent survey of education in Zaire (1969), report that the rate of failure and wastage of students in the Zairian school system is shockingly high. For instance, the survey states that between 1962 and 1968 academic years 74 percent of all the entrants into the primary school system in the country failed to complete their elementary school training. And of those 26 percent who managed to complete, only 38 percent entered the secondary school cycle; this yields a wastage rate of 62 percent of the primary school graduates. This attrition rate becomes alarmingly high in the secondary school system. Rideout, Young, et al. (1969) report that according to official figures obtained from the Ministry of Education for the academic years 1961-62 and 1966-67, which are taken to be representative of the school performance, only 9 percent of the entrants obtained their secondary school diplomas. The wastage rate in this cycle of education generally varies between 90 to 94 percent (Rideout, Young, et al., 1969).

And as one might expect at this point, of the 9 or less percent of these secondary school graduates, less than 2 percent reach the university. Once the students are at the university, their chances for

That is, for the three academic years above from which these statistics are drawn, the percentage of qualified teachers averages less than a third (26.76 %) of the total staff, while that of unqualified teachers (bearers of certificates) averaged over two-thirds (73.23 %). In actual practice this percentage is much higher, probably 75 %, because many of the qualified teachers hold administrative jobs in the school system and are thus exempted from teaching. What this means is that the students depend on three-fourths of unqualified teachers for their education. This problem is further complicated by the fact that these teachers, who have very little or no command of French, have to teach various subjects in French in accordance with the 1961-62 educational reform act which requires French as the medium of instruction for the entire educational system. (Georis and Agbiano, 1965; George, 1966).

Needless to say, this situation amounts to asking the blind to lead the blind. In most instances, however, the teachers simply have no choice but to teach their courses in the lingua franca of the region where the schools are located. Unfortunately this alternative only compounds the miseries of the students by simply postponing their day of reckoning when they will have to submit to a comprehensive examination in French in order to graduate from elementary school and gain entrance into the secondary schools. Clearly, given the lack of general training on the part of three-fourths of Zairian elementary school teachers, and their incompetence in French, one cannot expect the students to acquire those basic skills for which they are tested.

It is with this background of unpreparedness that graduates of elementary schools in Zaire seek entrance into the nation's secondary schools by submitting to a highly comprehensive and selective secondary school entrance examination in French on the major subjects taught in elementary schools. The few students (38-40 %) who manage to pass this examination gain entrance into the secondary school level; those who fail become drop-outs. Since there is no provision for recuperating such youngsters and channelling their talents into other areas of education, they are generally left to fill the rows of the unemployed.

Those students admitted in the secondary schools, however, fare only marginally better teachers-wise than those in elementary schools: the problem of unqualified teachers continues to affect the quality of

of the elementary school entrants completed the first four years of schooling; this rate appears to have been maintained for the 1962-68 academic years at which time over 54.7 percent of the students were in the first two grades (Rideout, Young et al., 1969). A similar situation exists in the secondary school system where 63 to 65 percent of the total enrollment during the 1966-68 academic year was found in the first two years (Rideout, Young et al., 1969).

A large part of the high attrition rate is due to what has become a rather eternal problem in Zairian education: viz., the lack of qualified teachers. George (1966: 87) observes in this regard that

- (6) Despite the large annual output of approximately 4,000 from the secondary level teacher-training schools, the proportion of qualified teachers (those holding a diploma earned after completing a 4- or 6-year secondary level teacher-training program) declined between 1959-60 and 1962-63.... Many of the thousands of Congolese trained as teachers have either not entered the profession at all or have left it to take other kinds of jobs with the Government or with private companies.¹⁸

According to the same source, "fewer than 10,000 of the total 43,000 primary teachers employed in 1962-63 held a diploma" (George, 1966: 87). Thus for the 1956-64 academic years the distribution of the qualified and unqualified elementary school teachers looked as in Table III (George, 1966: 87):

Table III: Subcategorization of Zairian
Elementary School Teachers

Qualification	Year & Number of Teachers			Percent		
	1959-60	1962-63	1963-64	1959-60	1962-63	1963-64
Total No. of Teachers	33,244	47,391	52,087	100.0	100.0	100.0
4- or 6-year Diploma	9,940	11,203	14,855	28.2	23.6	28.5
E.A.P. certificate (2yrs) ¹⁹	11,996	18,994	17,030	33.8	40.1	32.7
Certified Without training as Teacher	13,408	17,199	2,202	38.0	36.3	38.8

secondary education in Zaire. For instance, during the 1967-68 academic year, there were 6,722 secondary school teachers of whom 2,722 were foreign and 3,957 Zairian nationals (Rideout, Young, et al., 1969). Their distribution in terms of training was as in Table IV below (Rideout, Young, et al., 1969):²⁰

Table IV: Subcategorization of Secondary School in Zaire in 1967-68 According to Training

		Unqual- ified	Indeter- minate	D.4	D.6	D.8	D.10
A. Europeans	No.	9	206	60	692	1056	748
	%	1.3	7.4	2.1	24.9	38.1	26.9
B. Zairians	No.	56	101	418	2514	664	198
	%	1.4	2.5	10.5	63.6	16.8	5.0

According to Zairian educational regulations, in order to qualify as a secondary school teacher, one must complete at least a two-year college level teacher's training course after graduation from a six-year secondary school program. Completion of this program entitles one to an associate degree known as Regence (D.8). Recipients of a six-year teacher's training program (D.6) may teach, in case of need only in the first two years of secondary school; recipients of a four-year secondary school training may not teach in general (non-technical) secondary schools. But what the figures in Table IV, which are representative of the qualifications of secondary school staff, reveal is that over 35 percent of the European teachers and over 75 percent of the Zairian teachers in the secondary schools in Zaire during the 1967-68 academic year were unqualified. The average of the unqualified teachers from the two categories is around 56 percent, compared to that of the qualified teachers (those holding a Regence and a Licence or B.A. (D.10)) which is slightly over 43 percent. From a purely statistical point of view, the figures given above on the qualified teachers are good if all the teachers are taken as a group, but from a practical point of view, these figures are not indicative of the real situation in view of the fact that many of the Europeans were only part-time teachers. The

bulk of the teaching duties was, therefore, assigned to unqualified teachers, viz. the 63.6 of Zairians who held a D.6. Hence, the problem of staffing in secondary schools in Zaire differs from that of the elementary schools only in degree, but not in kind.

The second factor is the language of instruction. The use of French as the medium of instruction in all levels of formal education has already been discussed to a certain extent in connection with the training of elementary school teachers. What remains to be said here is the extent to which French appears to affect the learning habits of elementary school students.

French was adopted as the medium of instruction for the entire country in the educational reform of 1961-62 largely because of the myths discussed in section (2.1). This policy replaced a colonial one which allowed teaching in Lingala, Swahili, Kikongo, and Tshiluba up to the third grade, and often up to the sixth grade for certain subjects (George, 1966; Georis and Agbiano, 1965; Spencer, 1971). While most secondary school teachers, unlike their elementary school colleagues, have a good command of French, their students have basically the same problem with French as those in elementary schools. The problem is one of lack of reinforcement in the language. Zaire, unlike Senegal where 0.22 percent of the population claims French as a native language and an estimated 15 percent speaks it as a second language (Alexandre, 1971), appears to have an insignificant percentage of native speakers of French. The segment of the population that speaks it as a second language, as we stated previously, is more or less coterminous with that of the secondary and university graduates. As far as the teachers population is concerned, according to R. Cornevin of the "Academie des Sciences d'Outre-mer, out of some 35,000²¹ elementary school teachers in 1962, it was estimated that 15,000 of ~~them~~ had very little command of French (cited by Le Monde, August 10, 1965, and Champion (1974: 111)).

Whatever the correct figures about the speakers of French in Zaire may turn out to be (after a language census is taken), it is a well known fact that the number of Zairian families that speak French at home with their children, as to give them the needed reinforcement is

insignificantly small (cf. Polomé, 1963, 1968; Verbeke, 1966). Most families use their mother tongues for family affairs even if both parents speak French fluently. French has been assigned specific functions which are (a) international communication; (b) formal governmental communication; and (c) classroom instruction. Except for university students, elementary and secondary school students seldom speak French to each other unless they have no language in common between them. And this is rare, because students often review their lessons in their own languages which may be Kikongo, Lingala, Lomongo, Swahili or Tshiluba. As a result of this linguistic situation, which is often reflected in his/her academic performance, the non-University student in the Zairian education system finds himself/herself commuting between two worlds which have very little in common. For example, in an extensive testing experiment conducted in the elementary schools of Kinshasa in 1965, according to Verbeke (1966: 456-57), it was found that elementary school graduates had a maximum vocabulary of 1,000 words even though they had some ten hours or so of French each week for six years. Verbeke points out that these findings were alarming, especially in view of the fact that the estimated minimum vocabulary that a student must have in order to perform adequately at the secondary school level is between 2,000 and 3,000 words. What findings like these, which are paralleled elsewhere in Francophone and anglophone Africa, suggest is that the student's daily experience at home and in the community, on the one hand, and his/her school experience on the other, are mutually non-enforcing. This is both pedagogically unsound and counter-productive, and it is, therefore, not surprising that very few students manage to pass the secondary school and university entrance examinations which involve the testing of two subjects: French and mathematics. Actually, these examinations involve a testing of the students' competence of French in French and mathematics.

Zaire, like many other African states, needs not only to drastically reduce illiteracy but also needs thousands of trained cadres for all sectors of the society. While the attrition rate in the educational system discussed above cannot solely be attributed to the use of French as the language of instruction, the continuation of this policy will not help Zaire combat illiteracy (which is about 55 percent) and meet

its needs for trained manpower. On the contrary, this policy is increasing illiteracy in the country in that elementary school drop-outs lapse back into illiteracy after a prolonged lack of contact with French. And since elementary education is terminal for the greatest number of children, the country must change its language policy vis-à-vis education in order to, in part, create an educational basis from which various skilled manpower can be developed.

3.0 A Language Policy for Zaire

It should be evident from the preceding discussion that the improvement of the educational system in Zaire depends not only in a critical reappraisal of the educational goals inherited from Belgians and a re-evaluation of the curriculum,²² but also on the adoption of a sound language policy. Assuming that Lingala or Swahili will be adopted as the national language of Zaire, the questions that need to be answered here are (1) what will happen to the other three *linguae francae*? (2) What role if any, will French have in the Zairian educational system? We take up these questions and others in the remainder of this study.

3.1 Implementation of the Language Policy: While the choice of a national language for education or whatever reason requires a language census for both quantitative and attitudinal aspects, its successful implementation requires first of all the availability of language specialists and teachers, and secondly the availability of textbooks. At the present time the Republic of Zaire is deficient in both of these aspects. The first conference of Zairian linguists, referred to earlier, recognized these deficiencies when they made the following proposals concerning the use of Zairian languages as media of instruction:²²

- (6) We, the Zairian linguists, meeting here from May 22-26, (1974), considering (1) the importance of the teaching of and in Zairian languages in elementary and secondary schools; (2) the policy of return to Zairian authenticity; and (3) the present state of affairs in the area of Zairian languages, make the following proposals:

a. Concerning the elementary school level,

- (1) that the teaching be done in Zairian languages which will serve as the media of instruction for all the subjects taught from the first till the sixth grade;

- (2) that the Zairian languages begin serving as the media of instruction starting with the 1974-75 academic year, and that the following year they be introduced in the second grade, and so on progressively until the extinction of the present system (of using French as the medium of instruction);
- (3) that the inter-regional language, i.e. the dominant language of the region where the school is located, be chosen as the medium of instruction;
- (4) that the Zairian language which is used as medium of instruction from first grade onward be taught as a subject from the third grade onward;
- (5) that French be introduced as a subject, but not as the medium of instruction, in the third grade and that its teaching be intensified progressively until the second year of secondary school so that it may serve as the medium of instruction from the third year of secondary school;

b. Concerning the secondary school level,

- (6) that in the secondary school level all the courses be taught in Zairian languages in the first and second year;
- (7) that a second Zairian language be introduced in the third year of secondary school; that this language be taught as a subject but not be used as a medium of instruction; (and) that it be chosen in terms of its practical importance;
- (8) that beginning with the third year of secondary school, the Zairian language that is used as the medium of instruction from the first year on continue to serve as the medium of instruction for certain courses such as social studies, hygiene, composition, religion or civics, nutrition, Zairian commercial correspondence, aesthetics, etc.
- (9) that beyond the third year of secondary school certain courses be taught temporarily in French (cf. point 8 above);
- (10) that English be taught from the fourth year of secondary school onward.²⁴

That is, what the Zairian linguists proposed in their May 1974 conference is that the four Zairian *linguae francae*, namely, Kikongo, Kiswahili, Lingala, and Tshiluba, be used as media of instruction for all courses for the first eight years of education; and that they continue to serve

in this capacity concurrently with French for certain subjects from the third year of secondary school till the end of this cycle. What this means is that the country will be divided into four lingua franca zones according to the medium of instruction. These will be as follows:

- (1) Kikongo zone, Bas Zaire (formerly Bakongo) and Bandundu Provinces;²⁵
 - (2) Kiswahili zone, Haut Zaire (Oriental province, Kivu, and Shaba (Katanga) Provinces; (3) Lingala zone, Federal District of Kinshasa and the Equateur Province; and (4) Tshiluba zone, the two Kasai Provinces.
- Then once a student has completed his secondary school training in the regional lingua franca and French, he/she will begin post-secondary education in French. I shall refer to the proposals cited in (6) and just elaborated here as the Lubumbashi language policy plan or simply, the Lubumbashi plan.

These proposals are realistic in view of the present language loyalties, the inadequacy of qualified language teachers and textbooks in Zairian languages. Further, they constitute a return to the language policy practiced by missionaries during the colonial period when six major Congolese languages were officially used as media of instruction in the elementary school system. Specifically, there are at least three major arguments underlying the ten proposals cited in (6). The first argument, referred to in section (2.0) and one that was adopted in the resolutions on the "promotion of Zairian languages" by the May 1974 conference, states that:

- (7) As for the choice of a unique national language, after a lengthy and heated discussion, the assembly (of Zairian linguists) arrived at the following conclusions: (1) that at the present time all the (necessary) conditions are not met for the choice of a unique national language; (2) that it is therefore premature to make a decision on this matter; (3) but the pupils should be given the opportunity to study a second Zairian language of their own choosing in order to promote linguistic unity (Faik-Nzuji, 1974:2-3).

The necessary conditions referred to in this resolution (7) are the total lack of the type of language census discussed in section (2.4) that would have permitted the conference to make a judicious choice. The recommendation that the four Zairian *linguae francae* serve as the exclusive media of instruction for the first eight years of education follows from the resolution in (7), considering that the Zairian linguists were not

interested in continuing with the French medium for this level of education.

The second argument which is implicit in the recommendations cited in (6) is that Zaire does not at present time possess enough elementary and secondary school teachers who can teach all of their courses in one national language even if such a language were to be chosen; but the country has enough qualified instructors who can teach in the four *linguae francae* until additional ones are trained.²⁶ The third argument appears to be that there are certain courses (cf. recommendation 6b.8), apparently mathematics and sciences, that cannot be taught in the four Zairian *linguae francae* in the near future. Such courses, according to the recommendation cited in (6b.9), are to be taught "temporarily" (whatever this means) in French. One reason for this might be the problem of translation of scientific texts.

While these arguments are admittedly defensible in view of the present state of development of Zairian languages, the Lubumbashi plan (6) can only be taken as a short term (3 to 5 years) plan which will permit language specialists and educational leaders to prepare a more definitive policy. Regardless of how one might wish to consider this plan, whether as a short-term or long-term plan, there are a number of serious problems that render it impracticable. The first of these is that the plan will create new politico-linguistic loyalties and intensify existing ones. Such attitudes will very likely become divisive as in the case of Flemish and Walloons in Belgium, and thus destroy the national unity that the Mobutu administration has succeeded in promoting. The history of divisiveness in what is today the Republic of Zaire is well known, and needs no further discussion here. When the present administration is compared to the previous one it will be seen that its greatest achievement has been the fostering of national unity and identity partly as a result of President Mobutu's centralization of the administrative apparatus, and partly as a result of his authenticity campaign. It is important to note here that whereas before 1967 most Zairians would have identified themselves first in terms of their region or province of origin (e.g. mukongo, mungala, moluba, etc.) if asked about their nationality, today most Zairians identify themselves first as Zairians.

This process of nation-building has yet to reach a state of crystallization. If the Lubumbashi plan is adopted, it could eventually lead to the destruction of this fragile nationalism.

The second major problem is that the implementation of the Lubumbashi plan will be very costly to the nation. In particular, given that textbooks will have to either be translated and/or written for the new program, the implementation of the Lubumbashi plan will mean that each book must be translated in four different *linguae francae*. Since education in Zaire is nationally, rather than regionally, controlled, there is no way to avoid this high cost of printing needed materials. This means that the implementation of the Lubumbashi plan will quadruple not only the cost of producing textbooks, but will also increase unnecessarily the educational budget. Further, the use of French as the second medium of instruction in secondary school means that the National Examination (*Examen d'Etat*) given to graduating secondary school students each academic year will have to be prepared in five languages: French, Kikongo, Kiswahili, Lingala, and Tshiluba. Were a single national language proposed by the Lubumbashi conference, this type of cost would be avoided.

The third problem is that the use of the four Zairian *linguae francae* as media of instruction will seriously affect the mobility of students in the educational system. Specifically, the implementation of the Lubumbashi plan will make it difficult, if not impossible, in most cases for a student from one linguistic zone to transfer to a school in another linguistic zone. Students who are in a region such as the Haut Zaire Province (Kisangani) where both Swahili and Lingala are spoken, or parts of regions such as the Bas Zaire and Bandundu where both Kikongo and Lingala are spoken may find it relatively easy to transfer to a Lingala zone but not vice-versa. Similarly, students whose schools are located in linguistic zones which are mutually exclusive can only transfer with a great deal of loss in school years in order to catch up on the study of the regional language, unless, of course, the student happened to have studied the other three *linguae francae*. But this cannot be done at either the elementary or secondary school level, because the Lubumbashi plan provides only for the study of one other Zairian *lingua franca*.

Students in Uganda, where a language policy similar to the Lubumbashi plan has been adopted, have encountered the problem we have just described (cf. Ladefoged, et al., 1972).

The fourth and last major problem is similar to the one just discussed, and that is, the restriction of the mobility of teachers. Unless elementary and secondary school teachers are trained in all four Zairian *linguae francae*, which is very unlikely for the present group or for any that will graduate in the next three years, they cannot easily move from one linguistic zone to another. This problem is not as serious as the previous one, because such a training can be achieved in-service within four or five years; but for the time being instructors who are not conversant in two or three of the languages will have to be confined to their linguistic zones. The greatest effect of the Lubumbashi plan will probably be felt by school administrators whom the national government likes to permute from time to time.

There are a few other minor problems related to those discussed above, but we believe that these four constitute sufficient evidence for rejecting the Lubumbashi plan on both short and long-term points of view. To avoid these major problems, Zaire must adopt a language policy whereby one *lingua franca* can serve as the medium of instruction for the entire nation. Such a language policy, contrary to the recommendations made by the Lubumbashi conference, is feasible without creating the divisiveness which the conference feared would result.

3.2 A Comprehensive Language Policy Plan. The Republic of Zaire, because of its current socio-political philosophy of authenticity, is in a unique and most favorable situation for adopting a single nationwide language for all of its internal communication needs. What is more, the fact that two of the four *linguae francae* have been recognized by many Zairian intellectuals to have national status makes the choice of an indigenous national language much simpler than in many other African states. The political conflict that the choice of a national language might generate can be minimized, or avoided altogether, by adopting a comprehensive language policy that can take the other three languages into consideration.

Our proposal in this regard would consist of three major recommendations. The first recommendation would be to make the present Center for Modern Languages of the National University of Zaire/Lubumbashi into an institute for Research on Zairian languages. The institute's major task would be to undertake research in all major Zairian languages, to coordinate and publish needed textbooks and references in Zairian languages. The institute should work closely with the Department of African Linguistics of the UNAZA and the national bureau for research and development (ONRD) at Kinshasa. Our second recommendation would be to ask the government to commission the institute to undertake (or coordinate) a national survey of the four *linguae francae* in order to determine in fact the extent to which some of these languages are widely spoken, and the possible or degree of conflict that might exist in adopting one of these languages as the national language for education and national communication. Finally, we would propose that a single indigenous national language serve as the medium of instruction for all subjects in the elementary school system, and all secondary school courses except for mathematics and sciences that will be temporarily taught in French until adequate textbooks are prepared on these subjects in the national language. At the university level instruction will be provided in both the national language and French for different courses.

More specifically, the language policy we are proposing here consists of the following recommendations at the various levels of education:

(8) a. At the Elementary School Level

- (1) All subjects are to be taught in the national language from grade one until grade six, except as specified in point (2) below;
- (2) In regions where the national language is not commonly spoken, its use as medium of instruction should be introduced gradually in the third grade during the first five years of the implementation of the language policy; pupils in grades one and two in such regions will be taught in the *lingua franca* of the region while learning the national language as a subject;
- (3) The national language will be taught as a subject from grade three, except in regions where it is not commonly spoken; in such regions it will be introduced earlier as specified in point (2) above;

- (4) French will be introduced gradually as a subject matter in grade four and will continue progressively until secondary school;

b. At the Secondary School Level

- (1) All courses, except for mathematics and sciences which are to be taught temporarily in French until adequate textbooks are produced in the national language, are to be taught in the national language;
- (2) Require every student to learn a second Zairian lingua franca of his/her choice, but one which is not his/her first or second language, for at least two years beginning with the first year of secondary school;
- (3) Continue the teaching of both French and the national language as subjects; and introduce English as the second foreign language in the third year of secondary school;
- (4) Combine and modify the focus of the present "Section Pédagogique" and "Section Littéraire" of the secondary school into "Section des Langues et Litteratures Zairoises";²⁷
- (5) Include the national language and the other linguae francae as subjects on the end-of-secondary school state examination;

c. At the University Level

- (1) Continue the use of the national language as medium of instruction for courses in which it can serve effectively, and use French for all other courses;
- (2) Expand the Department of African Linguistics of the UNAZA/Lubumbashi to a more comprehensive program of (a) general theoretical linguistics, and (b) African languages and literatures, with the latter section focusing initially on Zairian topics/subject matters;
- (3) Require all education students at the various teachers' training colleges (e.g. IPN, Ecoles Normales) to learn two other linguae francae besides the ones they already speak/learned in secondary school, and pass a proficiency examination on them;
- (4) Regroup all the existing departments of foreign languages into one department with appropriate subdivisions in order to facilitate specialization.

If the language plan proposed here is adopted after a judicious selection of a national language, which may be either Lingala or Swahili, and is carefully implemented, it is very unlikely that any significant

language conflict would result. Notice that there are several advantages in this proposal compared to the Lubumbashi plan. First, the proposed language plan in (8) calls for a single national language for education and thereby avoids the unnecessary expenses and other difficulties inherent in the Lubumbashi plan (6). To the extent that this plan calls for a unitary national language, it will be more conducive to national unity in a manner consonant with the Mubutu government's efforts for authentic nationalism.

The second major advantage of this plan is that it provides for the training of language teachers (i.e. applied linguists) and general linguists by (a) incorporating a program of Zairian languages and literature in the secondary school system (cf. point 8.b.4); (b) requiring education students to study Zairian languages as an integral part of their teacher-training (cf. point 8.c.3); and (c) by expanding the program of the department of African linguistics (cf. point 8.c.2). The third major advantage is that it provides for the publication of needed language materials through the Institute for Research in African Languages (currently "Centre pour les Langues Vivantes") of the UNAZA.²⁸ In expanding the functions of this center, the present language proposal not only takes into account long range needs in African linguistics, but also provides a needed research institute for giving practical training to students of linguistics. There is also a built-in advantage to the present plan. And that is, by initially minimizing and eventually eliminating the use of French as a medium of instruction in the pre-university educational system, the plan reduces Zairian dependency on expatriate teachers and the high cost associated with their hiring. Further, the plan compels/forces the national government to train more Zairian teachers.

The language plan proposed here, if adopted, can be implemented on an experimental basis at the beginning of the 1980-81 academic year. This means that the Zairian Government would have over three years to undertake the necessary steps which will result in a judicious choice of national language, and to prepare any additional materials that will be needed for the implementation of the plan. By experimental here, we mean that the national language would be introduced gradually as the

medium of instruction for a few subjects, let us say one-third, in grade one beginning with the most basic subject matters that the elementary school pupil encounters in his/her daily life. This experiment should continue progressively for a period of three years, i.e. until the 1982-83 academic year. Then from 1983-84 onward the plan will be implemented in its entirety on a permanent basis. The experimental period suggested here is necessary to allow for certain adjustments in the plan and in the preparation of teaching materials.

4. Conclusion

The choice of a national language for any nation is a political decision. Linguists, sociologists, and economists can advise a national government on the matter, but the ultimate decision is almost always left to the politicians. In the preceding pages, we have discussed the problem of the choice of an indigenous national language for the Republic of Zaire within the framework of the political philosophy of authenticity. Our intention in discussing at some length this philosophy and its current application in Zaire was to show the reader that the choice of a national language for education in this country is a logical extension of that political philosophy, and that the political climate is propitious for such an undertaking.

Our contention is that the choice of a national language for the Republic of Zaire, as well as for other African states, is a critical factor in the over-all evaluation of its developmental goals. If Zaire is seriously concerned about the economic, socio-cultural, and political development of its people as outlined in the N'Sele Manifesto and within the framework provided by the philosophy of recourse to authenticity, the choice of an indigenous national language is an imperative. Authentic development cannot be carried out in a foreign language. Further, the nation can no longer afford to spend a third of its national budget on education to educate only a small part of the population at the expense of the masses. One way of rectifying the educational problems discussed in this paper and of showing that the socio-political philosophy of authenticity is a meaningful approach to development is to adopt a language policy such as the one proposed here.

FOOTNOTES

*This is an expanded version of a paper presented at the 6th Conference on African Linguistics held at the Ohio State University, Columbus, Ohio, on April 11-13, 1975. Since that time I have been engaged in a research project on the language policies of ten African states vis-à-vis education, and the present paper is essentially a progress report on that project. Part of the research for this paper was supported by a small grant from the University of Illinois African Studies Center during the Spring semester of 1975-76. I am grateful to Ndoma Ungina, Edgar Polomé, and Salikoko Mufwene for their invaluable comments and criticisms of an earlier draft of this paper. I am solely responsible for its content.

¹As used in this paper, the term official language will refer exclusively to a foreign language which is adopted by a national government as the medium of communication at national and international levels; and the term national language will refer to an indigenous language which is adopted for the same ends. I assume in the context of the present work that no foreign language can be called a national language.

²This has been the official policy since the advent of the "Ecoles Métropolitaines" in 1958-59, but its application has not been consistent throughout the country.

³I am referring here to the Katanga Secession of 1961-63, and the Mulele Rebellion of 1964-65. For a detailed analysis of the first civil war see J. Gérard-Libois (1963), Sécession au Katanga (Bruxelles:CRISP); and for the second, see Benoît Verhaegen (1966) and (1969); Rebellions au Congo, Tome I & II (Bruxelles:CRISP).

⁴I decided to give the original French definition because it is more forceful than the translation given below.

⁵(The recourse to authenticity) is the awakening up of political consciousness on the part of the Zairian people to return to their own origins, to seek the value system of their ancestors in order to select those values that contribute to their harmonious and natural development. It is the refusal of the Zairian people to espouse blindly imported ideologies. It is the affirmation of the Zairian man or of the man in short, where he is, and how he is made with his own mental capabilities and social structures. The recourse to authenticity is not a narrow nationalism, a blind return to the past, but it is, on the contrary, a medium of peace between nations, a necessary condition of existence between peoples, (and) a plat-form for cooperation between states. Because authenticity is not only a deep knowledge of one's own culture, but also a respect for the cultural heritage of others.

⁶ According to some well-informed sources, President Mobutu's original decision on the replacement of the European or Christian names by authentic African names stipulated that from now on any child born of a Zairian citizen cannot be given a Christian or European sounding name; all children must bear authentically Zairian or African first names. The President's argument was that the system of giving people Christian names was originally imposed on the population by the Catholic church during the colonial era, and constituted, therefore, one of the bad colonial vestiges that the Second Republic had to get rid of. When the decision was announced to the population in form of a decree, however, overzealous Ministers changed its content to stipulate that all Zairians must reject their Christian names and take up authentic Zairian ones. This announcement caught the President himself in surprise with his Christian names of Joseph Desiré, and a Belgian newspaper took advantage of this opportunity to criticize the decree and attack the President for not having changed his own names in compliance with the decree. It was subsequent to this criticism that President Mobutu adopted the names of Sese Seko Kuku Ngbendu Waza Banga.

⁷ These changes were misinterpreted by the Western Press as another example of President Mobutu's attempt to efface everything associated with Belgian colonialism. The fact of the matter is that most of the major Zairian cities that were renamed by Belgians after the annexation of the Congo to Belgium in 1908 were always known to the general population by their old African names. For instance, the capital city was officially known as Léopoldville, but it was always called unofficially and concurrently Kinshasa or Kinsasa by the masses. Thus what the Mobutu's administration did in 1966 was simply to officialize the original names of these cities and get rid of the Belgian imposed names.

⁸ Zaire is a Portuguese corruption of the Kikongo word Nzadi which means a river that swallows all others. The argument given to the Zairian press by the President for the change of the authentic name of Congo, actually Kongo, to Zaire was that the Kingdom of the Kongo embraced only part of what is today the Republic of Zaire; but the Zaire River runs throughout the entire country. It would be, therefore, the argument went, more symbolic of our national unity to name the country after the river. The argument is very interesting, but why adopt the corrupted version of this name instead of the original? The Government has never answered this question to my knowledge. Needless to say, there is some irony in this matter.

⁹ These terms may be more useful to political scientists than to linguists, because they reflect spheres of political influence on the continent.

¹⁰ Even though French was supposed to be used as the medium of instruction from the third grade onwards when Belgian colonial administration opened up public schools for the first time in 1954, this policy was not enforced until the 1958-59 academic year when the so-called regime metropolitain, until then restricted to Belgian and other

European children, was introduced in the country. Therefore, the use of this language by the would-become elite of the country was even more restricted.

¹¹ Grouped under secondary schools here are different levels of post-primary training: (a) écoles des moniteurs "teachers' training schools" (4 years); (b) écoles moyennes "secretarial schools" (4 years); (c) écoles professionnelles "trade schools" (4 years); (d) écoles secondaires "secondary schools" and/or humanités modernes "specialized type of secondary schools" (6 years). University here is understood as any institution of post-secondary training.

¹² This attitude is still prevalent in the Zairian secondary schools and universities according to information I obtained from colleagues who have recently returned from the National University of Zaire (UNAZA).

¹³ Ferguson's (1968) definition of language, while perhaps sociologically useful, is linguistically useless because any language is capable of conveying any concepts that any other human language can, even if this has to be done by paraphrastic constructions. Further, there is no scientific reason why the defining characteristics of language modernization must be based on "industrialized" and "secularized" societies.

¹⁴ Bokula's chart has eight provinces according to the current administrative divisions of the country, but I have preferred to use the old provincial divisions to make the chart more revealing.

¹⁵ This was a very significant move in view of the fact that the Catholic church in Zaire which not only claims the largest number of followers but has also dominated Zairian education for decades, has its headquarter in Kinshasa. And the Kinshasa diocese is considered as the most influential; therefore, this decision will have positive implications elsewhere in Zaire both within and outside of the Catholic church.

¹⁶ The body of literature developed by the Institute of Swahili Research of the former University of East Africa appears to be large enough to fulfill the needs of Zaire during the first stages of implementation of a national language policy should Swahili be chosen.

¹⁷ These figures are particularly disturbing considering that the 1963 European Economic Community Mission estimated that the Congo would require 1,112 doctors and medical assistants by 1970 to achieve a ratio of one doctor for every 16,000 patients. The Mission's report projected that a total of 263 doctors would be available from Congolese studying abroad (e.g. Belgium, Switzerland, France, etc.) and from the Université Officielle du Congo and Université Lovanium.

¹⁸ The major reason for the exodus of teachers from the teaching profession is the irregularity of payment of salaries or non-payments for periods going up to twelve months. This is particularly true of teachers working away from major urban centers. Many teachers who found themselves in this situation were forced to look for jobs elsewhere; and

since this is a constant phenomenon in the Zairian educational system, the exodus continues. University graduates whom I met in Zaire during my recent visit there in February expressed the same feelings of discouragement with the teaching profession.

¹⁹E.A.P. stands for Ecoles d'Apprentissage Pédagogique. This is a two-year post elementary school level for training lower primary teachers. The program leads to a certificate in education, but does not prepare its graduates to teach beyond the second grade.

²⁰The percentages in this table do not add up to 100%; the error is from the original table given in Rideout, et al. (1969:63).

²¹The figure cited by Cornevin here is inaccurate; the number of elementary school teachers in 1962 was 33,244. This means that the percentage of poor speakers of French in the teaching staff was much higher than Cornevin's figure would have led us to believe, and that the number of fluent speakers was only 18,244 rather than 20,000.

²²I am using the term in a much more wider sense to include both the type of courses that are taught in the school system and the contents of such courses. My point of view is that the courses and their contents must reflect the Zairian and African milieux for the children to have a meaningful educational development. I shall deal with this problem and related ones in a subsequent study.

²³These proposals are textual translations of the original French report of the Conference. Several other resolutions were adopted concerning the teaching of and research in Zairian languages.

²⁴I have not cited parts (c) and (d) of these resolutions because they are not immediately relevant here; I shall refer to them below.

²⁵There may be a problem here in sub-dividing the present eight provinces into four linguistic divisions in terms of the dominant lingua franca, because some provinces appear to be dominated by two linguae francae. This is the case for Shaba (formerly Katanga) which is Luba dominated in the northwest, but Swahili dominated in the copperbelt region of the south. Haut-Zaire (Oriental) also is in a similar situation with the increasing spread of Lingala in regions originally dominated by Swahili; and Bandundu, according to Salikoko Mufwene (personal communication), appears to be divided up between Kikongo and Lingala.

²⁶In the Zairian educational system, each elementary school instructor teaches all the subjects in his/her grade; this means that the instructor must be well-versed in the various aspects of the language of education. Secondary school instructors do not have this type of responsibility, they teach only those courses for which they are specialists.

²⁷ In combining these two sections, care should be taken that only student-teachers take courses on pedagogy or teaching methods; students not specializing in education should take other elective courses in their area.

²⁸ Any existing centres for publication of teaching materials, e.g. CELTA (Centre de la Linguistique Theorique et Appliquees) as well as the Centre pour les Langues Vivantes, must be regrouped into or completely replaced by the Institute for Research in African Languages.

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secondary education in Zaire. For instance, during the 1967-68 academic year, there were 6,722 secondary school teachers of whom 2,722 were foreign and 3,957 Zairian nationals (Rideout, Young, et al., 1969). Their distribution in terms of training was as in Table IV below (Rideout, Young, et al., 1969):²⁰

Table IV: Subcategorization of Secondary School
in Zaire in 1967-68 According to Training

		Unqual- ified	Indeter- minate	D.4	D.6	D.8	D.10
A. Europeans	No.	9	206	60	692	1056	748
	%	1.3	7.4	2.1	24.9	38.1	26.9
B. Zairians	No.	56	101	418	2514	664	198
	%	1.4	2.5	10.5	63.6	16.8	5.0

According to Zairian educational regulations, in order to qualify as a secondary school teacher, one must complete at least a two-year college level teacher's training course after graduation from a six-year secondary school program. Completion of this program entitles one to an associate degree known as Regence (D.8). Recipients of a six-year teacher's training program (D.6) may teach, in case of need only in the first two years of secondary school; recipients of a four-year secondary school training may not teach in general (non-technical) secondary schools. But what the figures in Table IV, which are representative of the qualifications of secondary school staff, reveal is that over 35 percent of the European teachers and over 75 percent of the Zairian teachers in the secondary schools in Zaire during the 1967-68 academic year were unqualified. The average of the unqualified teachers from the two categories is around 56 percent, compared to that of the qualified teachers (those holding a Regence and a Licence or B.A. (D.10)) which is slightly over 43 percent. From a purely statistical point of view, the figures given above on the qualified teachers are good if all the teachers are taken as a group, but from a practical point of view, these figures are not indicative of the real situation in view of the fact that many of the Europeans were only part-time teachers. The

bulk of the teaching duties was, therefore, assigned to unqualified teachers, viz. the 63.6 of Zairians who held a D.6. Hence, the problem of staffing in secondary schools in Zaire differs from that of the elementary schools only in degree, but not in kind.

The second factor is the language of instruction. The use of French as the medium of instruction in all levels of formal education has already been discussed to a certain extent in connection with the training of elementary school teachers. What remains to be said here is the extent to which French appears to affect the learning habits of elementary school students.

French was adopted as the medium of instruction for the entire country in the educational reform of 1961-62 largely because of the myths discussed in section (2.1). This policy replaced a colonial one which allowed teaching in Lingala, Swahili, Kikongo, and Tshiluba up to the third grade, and often up to the sixth grade for certain subjects (George, 1966; Georis and Agbiano, 1965; Spencer, 1971). While most secondary school teachers, unlike their elementary school colleagues, have a good command of French, their students have basically the same problem with French as those in elementary schools. The problem is one of lack of reinforcement in the language. Zaire, unlike Senegal where 0.22 percent of the population claims French as a native language and an estimated 15 percent speaks it as a second language (Alexandre, 1971), appears to have an insignificant percentage of native speakers of French. The segment of the population that speaks it as a second language, as we stated previously, is more or less coterminous with that of the secondary and university graduates. As far as the teachers population is concerned, according to R. Cornevin of the "Academie des Sciences d'Outre-mer, out of some 35,000²¹ elementary school teachers in 1962, it was estimated that 15,000 of **them** had very little command of French (cited by Le Monde, August 10, 1965, and Champion (1974: 111)).

Whatever the correct figures about the speakers of French in Zaire may turn out to be (after a language census is taken), it is a well known fact that the number of Zairian families that speak French at home with their children, as to give them the needed reinforcement is

insignificantly small (cf. Polomé, 1963, 1968; Verbeke, 1966). Most families use their mother tongues for family affairs even if both parents speak French fluently. French has been assigned specific functions which are (a) international communication; (b) formal governmental communication; and (c) classroom instruction. Except for university students, elementary and secondary school students seldom speak French to each other unless they have no language in common between them. And this is rare, because students often review their lessons in their own languages which may be Kikongo, Lingala, Lomongo, Swahili or Tshiluba. As a result of this linguistic situation, which is often reflected in his/her academic performance, the non-University student in the Zairian education system finds himself/herself commuting between two worlds which have very little in common. For example, in an extensive testing experiment conducted in the elementary schools of Kinshasa in 1965, according to Verbeke (1966: 456-57), it was found that elementary school graduates had a maximum vocabulary of 1,000 words even though they had some ten hours or so of French each week for six years. Verbeke points out that these findings were alarming, especially in view of the fact that the estimated minimum vocabulary that a student must have in order to perform adequately at the secondary school level is between 2,000 and 3,000 words. What findings like these, which are paralleled elsewhere in Francophone and anglophone Africa, suggest is that the student's daily experience at home and in the community, on the one hand, and his/her school experience on the other, are mutually non-enforcing. This is both pedagogically unsound and counter-productive, and it is, therefore, not surprising that very few students manage to pass the secondary school and university entrance examinations which involve the testing of two subjects: French and mathematics. Actually, these examinations involve a testing of the students' competence of French in French and mathematics.

Zaire, like many other African states, needs not only to drastically reduce illiteracy but also needs thousands of trained cadres for all sectors of the society. While the attrition rate in the educational system discussed above cannot solely be attributed to the use of French as the language of instruction, the continuation of this policy will not help Zaire combat illiteracy (which is about 55 percent) and meet

its needs for trained manpower. On the contrary, this policy is increasing illiteracy in the country in that elementary school drop-outs lapse back into illiteracy after a prolonged lack of contact with French. And since elementary education is terminal for the greatest number of children, the country must change its language policy vis-à-vis education in order to, in part, create an educational basis from which various skilled manpower can be developed.

3.0 A Language Policy for Zaire

It should be evident from the preceding discussion that the improvement of the educational system in Zaire depends not only in a critical reappraisal of the educational goals inherited from Belgians and a re-evaluation of the curriculum,²² but also on the adoption of a sound language policy. Assuming that Lingala or Swahili will be adopted as the national language of Zaire, the questions that need to be answered here are (1) what will happen to the other three *linguae francae*? (2) What role if any, will French have in the Zairian educational system? We take up these questions and others in the remainder of this study.

3.1 Implementation of the Language Policy. While the choice of a national language for education or whatever reason requires a language census for both quantitative and attitudinal aspects, its successful implementation requires first of all the availability of language specialists and teachers, and secondly the availability of textbooks. At the present time the Republic of Zaire is deficient in both of these aspects. The first conference of Zairian linguists, referred to earlier, recognized these deficiencies when they made the following proposals concerning the use of Zairian languages as media of instruction:²²

(6) We, the Zairian linguists, meeting here from May 22-26, (1974), considering (1) the importance of the teaching of and in Zairians languages in elementary and secondary schools; (2) the policy of return to Zairian authenticity; and (3) the present state of affairs in the area of Zairian languages, make the following proposals:

a. Concerning the elementary school level,

(1) that the teaching be done in Zairian languages which will serve as the media of instruction for all the subjects taught from the first till the sixth grade;

- (2) that the Zairian languages begin serving as the media of instruction starting with the 1974-75 academic year, and that the following year they be introduced in the second grade, and so on progressively until the extinction of the present system (of using French as the medium of instruction);
 - (3) that the inter-regional language, i.e. the dominant language of the region where the school is located, be chosen as the medium of instruction;
 - (4) that the Zairian language which is used as medium of instruction from first grade onward be taught as a subject from the third grade onward;
 - (5) that French be introduced as a subject, but not as the medium of instruction, in the third grade and that its teaching be intensified progressively until the second year of secondary school so that it may serve as the medium of instruction from the third year of secondary school;
- b. Concerning the secondary school level,
- (6) that in the secondary school level all the courses be taught in Zairian languages in the first and second year;
 - (7) that a second Zairian language be introduced in the third year of secondary school; that this language be taught as a subject but not be used as a medium of instruction; (and) that it be chosen in terms of its practical importance;
 - (8) that beginning with the third year of secondary school, the Zairian language that is used as the medium of instruction from the first year on continue to serve as the medium of instruction for certain courses such as social studies, hygiene, composition, religion or civics, nutrition, Zairian commercial correspondance, aesthetics, etc.
 - (9) that beyond the third year of secondary school certain courses be taught temporarily in French (cf. point 8 above);
 - (10) that English be taught from the fourth year of secondary school onward.²⁴

That is, what the Zairian linguists proposed in their May 1974 conference is that the four Zairian *linguae francae*, namely, Kikongo, Kiswahili, Lingala, and Tshiluba, be used as media of instruction for all courses for the first eight years of education; and that they continue to serve

in this capacity concurrently with French for certain subjects from the third year of secondary school till the end of this cycle. What this means is that the country will be divided into four lingua franca zones according to the medium of instruction. These will be as follows:

(1) Kikongo zone, Bas Zaire (formerly Bakongo) and Bandundu Provinces;²⁵
 (2) Kiswahili zone, Haut Zaire (Oriental province, Kivu, and Shaba (Katanga) Provinces; (3) Lingala zone, Federal District of Kinshasa and the Equateur Province; and (4) Tshiluba zone, the two Kasai Provinces. Then once a student has completed his secondary school training in the regional lingua franca and French, he/she will begin post-secondary education in French. I shall refer to the proposals cited in (6) and just elaborated here as the Lubumbashi language policy plan or simply, the Lubumbashi plan.

These proposals are realistic in view of the present language loyalties, the inadequacy of qualified language teachers and textbooks in Zairian languages. Further, they constitute a return to the language policy practiced by missionaries during the colonial period when six major Congolese languages were officially used as media of instruction in the elementary school system. Specifically, there are at least three major arguments underlying the ten proposals cited in (6). The first argument, referred to in section (2.0) and one that was adopted in the resolutions on the "promotion of Zairian languages" by the May 1974 conference, states that:

(7) As for the choice of a unique national language, after a lengthy and heated discussion, the assembly (of Zairian linguists) arrived at the following conclusions: (1) that at the present time all the (necessary) conditions are not met for the choice of a unique national language; (2) that it is therefore premature to make a decision on this matter; (3) but the pupils should be given the opportunity to study a second Zairian language of their own choosing in order to promote linguistic unity (Faik-Nzuji, 1974:2-3).

The necessary conditions referred to in this resolution (7) are the total lack of the type of language census discussed in section (2.4) that would have permitted the conference to make a judicious choice. The recommendation that the four Zairian *linguae francae* serve as the exclusive media of instruction for the first eight years of education follows from the resolution in (7), considering that the Zairian linguists were not

interested in continuing with the French medium for this level of education.

The second argument which is implicit in the recommendations cited in (6) is that Zaire does not at present time possess enough elementary and secondary school teachers who can teach all of their courses in one national language even if such a language were to be chosen; but the country has enough qualified instructors who can teach in the four *linguae francae* until additional ones are trained.²⁶ The third argument appears to be that there are certain courses (cf. recommendation 6b.8), apparently mathematics and sciences, that cannot be taught in the four Zairian *linguae francae* in the near future. Such courses, according to the recommendation cited in (6b.9), are to be taught "temporarily" (whatever this means) in French. One reason for this might be the problem of translation of scientific texts.

While these arguments are admittedly defensible in view of the present state of development of Zairian languages, the Lubumbashi plan (6) can only be taken as a short term (3 to 5 years) plan which will permit language specialists and educational leaders to prepare a more definitive policy. Regardless of how one might wish to consider this plan, whether as a short-term or long-term plan, there are a number of serious problems that render it impracticable. The first of these is that the plan will create new politico-linguistic loyalties and intensify existing ones. Such attitudes will very likely become divisive as in the case of Flemish and Walloons in Belgium, and thus destroy the national unity that the Mobutu administration has succeeded in promoting. The history of divisiveness in what is today the Republic of Zaire is well known, and needs no further discussion here. When the present administration is compared to the previous one it will be seen that its greatest achievement has been the fostering of national unity and identity partly as a result of President Mobutu's centralization of the administrative apparatus, and partly as a result of his authenticity campaign. It is important to note here that whereas before 1967 most Zairians would have identified themselves first in terms of their region or province of origin (e.g. mukongo, mungala, moluba, etc.) if asked about their nationality, today most Zairians identify themselves first as Zairians.

This process of nation-building has yet to reach a state of crystallization. If the Lubumbashi plan is adopted, it could eventually lead to the destruction of this fragile nationalism.

The second major problem is that the implementation of the Lubumbashi plan will be very costly to the nation. In particular, given that textbooks will have to either be translated and/or written for the new program, the implementation of the Lubumbashi plan will mean that each book must be translated in four different *linguae francae*. Since education in Zaire is nationally, rather than regionally, controlled, there is no way to avoid this high cost of printing needed materials. This means that the implementation of the Lubumbashi plan will quadruple not only the cost of producing textbooks, but will also increase unnecessarily the educational budget. Further, the use of French as the second medium of instruction in secondary school means that the National Examination (*Examen d'Etat*) given to graduating secondary school students each academic year will have to be prepared in five languages: French, Kikongo, Kiswahili, Lingala, and Tshiluba. Were a single national language proposed by the Lubumbashi conference, this type of cost would be avoided.

The third problem is that the use of the four Zairian *linguae francae* as media of instruction will seriously affect the mobility of students in the educational system. Specifically, the implementation of the Lubumbashi plan will make it difficult, if not impossible, in most cases for a student from one linguistic zone to transfer to a school in another linguistic zone. Students who are in a region such as the Haut Zaire Province (Kisangani) where both Swahili and Lingala are spoken, or parts of regions such as the Bas Zaire and Bandundu where both Kikongo and Lingala are spoken may find it relatively easy to transfer to a Lingala zone but not vice-versa. Similarly, students whose schools are located in linguistic zones which are mutually exclusive can only transfer with a great deal of loss in school years in order to catch up on the study of the regional language, unless, of course, the student happened to have studied the other three *linguae francae*. But this cannot be done at either the elementary or secondary school level, because the Lubumbashi plan provides only for the study of one other Zairian *lingua franca*.

Students in Uganda, where a language policy similar to the Lubumbashi plan has been adopted, have encountered the problem we have just described (cf. Ladefoged, et al., 1972).

The fourth and last major problem is similar to the one just discussed, and that is, the restriction of the mobility of teachers. Unless elementary and secondary school teachers are trained in all four Zairian *linguae francae*, which is very unlikely for the present group or for any that will graduate in the next three years, they cannot easily move from one linguistic zone to another. This problem is not as serious as the previous one, because such a training can be achieved in-service within four or five years; but for the time being instructors who are not conversant in two or three of the languages will have to be confined to their linguistic zones. The greatest effect of the Lubumbashi plan will probably be felt by school administrators whom the national government likes to permute from time to time.

There are a few other minor problems related to those discussed above, but we believe that these four constitute sufficient evidence for rejecting the Lubumbashi plan on both short and long-term points of view. To avoid these major problems, Zaire must adopt a language policy whereby one *lingua franca* can serve as the medium of instruction for the entire nation. Such a language policy, contrary to the recommendations made by the Lubumbashi conference, is feasible without creating the divisiveness which the conference feared would result.

3.2 A Comprehensive Language Policy Plan. The Republic of Zaire, because of its current socio-political philosophy of authenticity, is in a unique and most favorable situation for adopting a single nationwide language for all of its internal communication needs. What is more, the fact that two of the four *linguae francae* have been recognized by many Zairian intellectuals to have national status makes the choice of an indigenous national language much simpler than in many other African states. The political conflict that the choice of a national language might generate can be minimized, or avoided altogether, by adopting a comprehensive language policy that can take the other three languages into consideration.

Our proposal in this regard would consist of three major recommendations. The first recommendation would be to make the present Center for Modern Languages of the National University of Zaire/Lubumbashi into an institute for Research on Zairian languages. The institute's major task would be to undertake research in all major Zairian languages, to coordinate and publish needed textbooks and references in Zairian languages. The institute should work closely with the Department of African Linguistics of the UNAZA and the national bureau for research and development (ONRD) at Kinshasa. Our second recommendation would be to ask the government to commission the institute to undertake (or coordinate) a national survey of the four *linguae francae* in order to determine in fact the extent to which some of these languages are widely spoken, and the possible or degree of conflict that might exist in adopting one of these languages as the national language for education and national communication. Finally, we would propose that a single indigenous national language serve as the medium of instruction for all subjects in the elementary school system, and all secondary school courses except for mathematics and sciences that will be temporarily taught in French until adequate textbooks are prepared on these subjects in the national language. At the university level instruction will be provided in both the national language and French for different courses.

More specifically, the language policy we are proposing here consists of the following recommendations at the various levels of education:

(8) a. At the Elementary School Level

- (1) All subjects are to be taught in the national language from grade one until grade six, except as specified in point (2) below;
- (2) In regions where the national language is not commonly spoken, its use as medium of instruction should be introduced gradually in the third grade during the first five years of the implementation of the language policy; pupils in grades one and two in such regions will be taught in the *lingua franca* of the region while learning the national language as a subject;
- (3) The national language will be taught as a subject from grade three, except in regions where it is not commonly spoken; in such regions it will be introduced earlier as specified in point (2) above;

- (4) French will be introduced gradually as a subject matter in grade four and will continue progressively until secondary school;

b. At the Secondary School Level

- (1) All courses, except for mathematics and sciences which are to be taught temporarily in French until adequate textbooks are produced in the national language, are to be taught in the national language;
- (2) Require every student to learn a second Zairian lingua franca of his/her choice, but one which is not his/her first or second language, for at least two years beginning with the first year of secondary school;
- (3) Continue the teaching of both French and the national language as subjects; and introduce English as the second foreign language in the third year of secondary school;
- (4) Combine and modify the focus of the present "Section Pédagogique" and "Section Littéraire" of the secondary school into "Section des Langues et Littératures Zairoises";²⁷
- (5) Include the national language and the other linguae francae as subjects on the end-of-secondary school state examination;

c. At the University Level

- (1) Continue the use of the national language as medium of instruction for courses in which it can serve effectively, and use French for all other courses;
- (2) Expand the Department of African Linguistics of the UNAZA/Lubumbashi to a more comprehensive program of (a) general theoretical linguistics, and (b) African languages and literatures, with the latter section focusing initially on Zairian topics/subject matters;
- (3) Require all education students at the various teachers' training colleges (e.g. IPN, Ecoles Normales) to learn two other linguae francae besides the ones they already speak/learned in secondary school, and pass a proficiency examination on them;
- (4) Regroup all the existing departments of foreign languages into one department with appropriate subdivisions in order to facilitate specialization.

If the language plan proposed here is adopted after a judicious selection of a national language, which may be either Lingala or Swahili, and is carefully implemented, it is very unlikely that any significant

language conflict would result. Notice that there are several advantages in this proposal compared to the Lubumbashi plan. First, the proposed language plan in (8) calls for a single national language for education and thereby avoids the unnecessary expenses and other difficulties inherent in the Lubumbashi plan (6). To the extent that this plan calls for a unitary national language, it will be more conducive to national unity in a manner consonant with the Mubutu government's efforts for authentic nationalism.

The second major advantage of this plan is that it provides for the training of language teachers (i.e. applied linguists) and general linguists by (a) incorporating a program of Zairian languages and literature in the secondary school system (cf. point 8.b.4); (b) requiring education students to study Zairian languages as an integral part of their teacher-training (cf. point 8.c.3); and (c) by expanding the program of the department of African linguistics (cf. point 8.c.2). The third major advantage is that it provides for the publication of needed language materials through the Institute for Research in African Languages (currently "Centre pour les Langues Vivantes") of the UNAZA.²⁸ In expanding the functions of this center, the present language proposal not only takes into account long range needs in African linguistics, but also provides a needed research institute for giving practical training to students of linguistics. There is also a built-in advantage to the present plan. And that is, by initially minimizing and eventually eliminating the use of French as a medium of instruction in the pre-university educational system, the plan reduces Zairian dependency on expatriate teachers and the high cost associated with their hiring. Further, the plan compels/forces the national government to train more Zairian teachers.

The language plan proposed here, if adopted, can be implemented on an experimental basis at the beginning of the 1980-81 academic year. This means that the Zairian Government would have over three years to undertake the necessary steps which will result in a judicious choice of national language, and to prepare any additional materials that will be needed for the implementation of the plan. By experimental here, we mean that the national language would be introduced gradually as the

medium of instruction for a few subjects, let us say one-third, in grade one beginning with the most basic subject matters that the elementary school pupil encounters in his/her daily life. This experiment should continue progressively for a period of three years, i.e. until the 1982-83 academic year. Then from 1983-84 onward the plan will be implemented in its entirety on a permanent basis. The experimental period suggested here is necessary to allow for certain adjustments in the plan and in the preparation of teaching materials.

4. Conclusion

The choice of a national language for any nation is a political decision. Linguists, sociologists, and economists can advise a national government on the matter, but the ultimate decision is almost always left to the politicians. In the preceding pages, we have discussed the problem of the choice of an indigenous national language for the Republic of Zaire within the framework of the political philosophy of authenticity. Our intention in discussing at some length this philosophy and its current application in Zaire was to show the reader that the choice of a national language for education in this country is a logical extension of that political philosophy, and that the political climate is propitious for such an undertaking.

Our contention is that the choice of a national language for the Republic of Zaire, as well as for other African states, is a critical factor in the over-all evaluation of its developmental goals. If Zaire is seriously concerned about the economic, socio-cultural, and political development of its people as outlined in the N'Sele Manifesto and within the framework provided by the philosophy of recourse to authenticity, the choice of an indigenous national language is an imperative. Authentic development cannot be carried out in a foreign language. Further, the nation can no longer afford to spend a third of its national budget on education to educate only a small part of the population at the expense of the masses. One way of rectifying the educational problems discussed in this paper and of showing that the socio-political philosophy of authenticity is a meaningful approach to development is to adopt a language policy such as the one proposed here.

FOOTNOTES

*This is an expanded version of a paper presented at the 6th Conference on African Linguistics held at the Ohio State University, Columbus, Ohio, on April 11-13, 1975. Since that time I have been engaged in a research project on the language policies of ten African states vis-à-vis education, and the present paper is essentially a progress report on that project. Part of the research for this paper was supported by a small grant from the University of Illinois African Studies Center during the Spring semester of 1975-76. I am grateful to Ndoma Ungina, Edgar Polomé, and Salikoko Mufwene for their invaluable comments and criticisms of an earlier draft of this paper. I am solely responsible for its content.

¹As used in this paper, the term official language will refer exclusively to a foreign language which is adopted by a national government as the medium of communication at national and international levels; and the term national language will refer to an indigenous language which is adopted for the same ends. I assume in the context of the present work that no foreign language can be called a national language.

²This has been the official policy since the advent of the "Ecoles Métropolitaines" in 1958-59, but its application has not been consistent throughout the country.

³I am referring here to the Katanga Secession of 1961-63, and the Mulele Rebellion of 1964-65. For a detailed analysis of the first civil war see J. Gérard-Libois (1963), Sécession au Katanga (Bruxelles:CRISP); and for the second, see Benoît Verhaegen (1966) and (1969), Rebellions au Congo, Tome I & II (Bruxelles:CRISP).

⁴I decided to give the original French definition because it is more forceful than the translation given below.

⁵(The recourse to authenticity) is the awakening up of political consciousness on the part of the Zairian people to return to their own origins, to seek the value system of their ancestors in order to select those values that contribute to their harmonious and natural development. It is the refusal of the Zairian people to espouse blindly imported ideologies. It is the affirmation of the Zairian man or of the man in short, where he is, and how he is made with his own mental capabilities and social structures. The recourse to authenticity is not a narrow nationalism, a blind return to the past, but it is, on the contrary, a medium of peace between nations, a necessary condition of existence between peoples, (and) a plat-form for cooperation between states. Because authenticity is not only a deep knowledge of one's own culture, but also a respect for the cultural heritage of others.

⁶ According to some well-informed sources, President Mobutu's original decision on the replacement of the European or Christian names by authentic African names stipulated that from now on any child born of a Zairian citizen cannot be given a Christian or European sounding name; all children must bear authentically Zairian or African first names. The President's argument was that the system of giving people Christian names was originally imposed on the population by the Catholic church during the colonial era, and constituted, therefore, one of the bad colonial vestiges that the Second Republic had to get rid of. When the decision was announced to the population in form of a decree, however, overzealous Ministers changed its content to stipulate that all Zairians must reject their Christian names and take up authentic Zairian ones. This announcement caught the President himself in surprise with his Christian names of Joseph Desire, and a Belgian newspaper took advantage of this opportunity to criticize the decree and attack the President for not having changed his own names in compliance with the decree. It was subsequent to this criticism that President Mobutu adopted the names of Sese Seko Kuku Ngbendu Waza Banga.

⁷ These changes were misinterpreted by the Western Press as another example of President Mobutu's attempt to efface everything associated with Belgian colonialism. The fact of the matter is that most of the major Zairian cities that were renamed by Belgians after the annexation of the Congo to Belgium in 1908 were always known to the general population by their old African names. For instance, the capital city was officially known as Léopoldville, but it was always called unofficially and concurrently Kinshasa or Kinsasa by the masses. Thus what the Mobutu's administration did in 1966 was simply to officialize the original names of these cities and get rid of the Belgian imposed names.

⁸ Zaire is a Portuguese corruption of the Kikongo word Nzadi which means a river that swallows all others. The argument given to the Zairian press by the President for the change of the authentic name of Congo, actually Kongo, to Zaire was that the Kingdom of the Kongo embraced only part of what is today the Republic of Zaire; but the Zaire River runs throughout the entire country. It would be, therefore, the argument went, more symbolic of our national unity to name the country after the river. The argument is very interesting, but why adopt the corrupted version of this name instead of the original? The Government has never answered this question to my knowledge. Needless to say, there is some irony in this matter.

⁹ These terms may be more useful to political scientists than to linguists, because they reflect spheres of political influence on the continent.

¹⁰ Even though French was supposed to be used as the medium of instruction from the third grade onwards when Belgian colonial administration opened up public schools for the first time in 1954, this policy was not enforced until the 1958-59 academic year when the so-called regime metropolitain, until then restricted to Belgian and other

European children, was introduced in the country. Therefore, the use of this language by the would-become elite of the country was even more restricted.

¹¹ Grouped under secondary schools here are different levels of post-primary training: (a) écoles des moniteurs "teachers' training schools" (4 years); (b) écoles moyennes "secretarial schools" (4 years); (c) écoles professionnelles "trade schools" (4 years); (d) écoles secondaires "secondary schools" and/or humanités modernes "specialized type of secondary schools" (6 years). University here is understood as any institution of post-secondary training.

¹² This attitude is still prevalent in the Zairian secondary schools and universities according to information I obtained from colleagues who have recently returned from the National University of Zaire (UNAZA).

¹³ Ferguson's (1968) definition of language, while perhaps sociologically useful, is linguistically useless because any language is capable of conveying any concepts that any other human language can, even if this has to be done by paraphrastic constructions. Further, there is no scientific reason why the defining characteristics of language modernization must be based on "industrialized" and "secularized" societies.

¹⁴ Bokula's chart has eight provinces according to the current administrative divisions of the country, but I have preferred to use the old provincial divisions to make the chart more revealing.

¹⁵ This was a very significant move in view of the fact that the Catholic church in Zaire which not only claims the largest number of followers but has also dominated Zairian education for decades, has its headquarter in Kinshasa. And the Kinshasa diocese is considered as the most influential; therefore, this decision will have positive implications elsewhere in Zaire both within and outside of the Catholic church.

¹⁶ The body of literature developed by the Institute of Swahili Research of the former University of East Africa appears to be large enough to fulfill the needs of Zaire during the first stages of implementation of a national language policy should Swahili be chosen.

¹⁷ These figures are particularly disturbing considering that the 1963 European Economic Community Mission estimated that the Congo would require 1,112 doctors and medical assistants by 1970 to achieve a ratio of one doctor for every 16,000 patients. The Mission's report projected that a total of 263 doctors would be available from Congolese studying abroad (e.g. Belgium, Switzerland, France, etc.) and from the Université Officielle du Congo and Université Lovanium.

¹⁸ The major reason for the exodus of teachers from the teaching profession is the irregularity of payment of salaries or non-payments for periods going up to twelve months. This is particularly true of teachers working away from major urban centers. Many teachers who found themselves in this situation were forced to look for jobs elsewhere; and

since this is a constant phenomenon in the Zairian educational system, the exodus continues. University graduates whom I met in Zaire during my recent visit there in February expressed the same feelings of discouragement with the teaching profession.

¹⁹E.A.P. stands for Ecoles d'Apprentissage Pédagogique. This is a two-year post elementary school level for training lower primary teachers. The program leads to a certificate in education, but does not prepare its graduates to teach beyond the second grade.

²⁰The percentages in this table do not add up to 100%; the error is from the original table given in Rideout, et al. (1969:63).

²¹The figure cited by Cornevin here is inaccurate; the number of elementary school teachers in 1962 was 33,244. This means that the percentage of poor speakers of French in the teaching staff was much higher than Cornevin's figure would have led us to believe, and that the number of fluent speakers was only 18,244 rather than 20,000.

²²I am using the term in a much more wider sense to include both the type of courses that are taught in the school system and the contents of such courses. My point of view is that the courses and their contents must reflect the Zairian and African milieu for the children to have a meaningful educational development. I shall deal with this problem and related ones in a subsequent study.

²³These proposals are textual translations of the original French report of the Conference. Several other resolutions were adopted concerning the teaching of and research in Zairian languages.

²⁴I have not cited parts (c) and (d) of these resolutions because they are not immediately relevant here; I shall refer to them below.

²⁵There may be a problem here in sub-dividing the present eight provinces into four linguistic divisions in terms of the dominant lingua franca, because some provinces appear to be dominated by two linguae francae. This is the case for Shaba (formerly Katanga) which is Luba dominated in the northwest, but Swahili dominated in the copperbelt region of the south. Haut-Zaire (Oriental) also is in a similar situation with the increasing spread of Lingala in regions originally dominated by Swahili; and Bandundu, according to Salikoko Mufwene (personal communication), appears to be divided up between Kikongo and Lingala.

²⁶In the Zairian educational system, each elementary school instructor teaches all the subjects in his/her grade; this means that the instructor must be well-versed in the various aspects of the language of education. Secondary school instructors do not have this type of responsibility, they teach only those courses for which they are specialists.

²⁷ In combining these two sections, care should be taken that only student-teachers take courses on pedagogy or teaching methods; students not specializing in education should take other elective courses in their area.

²⁸ Any existing centres for publication of teaching materials, e.g. CELTA (Centre de la Linguistique Theorique et Appliquees) as well as the Centre pour les Langues Vivantes, must be regrouped into or completely replaced by the Institute for Research in African Languages.

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ON THE JUSTIFICATION FOR LANGUAGE-SPECIFIC SUB-GRAMMATICAL RELATIONS¹

Gerard M. Dalgish
and
Gloria Sheintuch

This paper examines the syntactic behavior of a semantically and syntactically specifiable set of NP's in Olutsootso, a dialect of Luyia spoken in western Kenya and eastern Uganda, in an attempt to determine the grammatical relation such NP's play in sentences of the language. More specifically, this semantically and syntactically specifiable set of NP's consists of locative NP's taking as prefix one of three locative markers xu-, mu-, and ha-, meaning 'on', 'in', and 'near' respectively. The analyses of such locatives available to date in the literature, be they traditional or transformational in approach, classify them as prepositional phrases, not bearing any grammatical relation to the verb in the sentence. It is shown that such analyses are inadequate, and that these locatives constitute a semantically and syntactically distinct subrelation of the grammatical relation direct object.

Some information about Olutsootso morphology is useful at the beginning of the paper to help clarify the ensuing data. Olutsootso has typical Bantu morphological characteristics including noun classes which govern agreement on verbs for subjects and direct objects and on other grammatical elements such as relative pronouns, demonstratives and possessives. The verbal morphology consists of subject and object agreement prefixes as well as derivational verbal suffixes, among them the "applied" suffix -il/-el triggered in general by a benefactive, instrumental, or directional NP in the sentence, the passive suffix -u/-ibw, and the locative suffix -xwo/-mwo/-ho, each agreeing with one of the three locative markers mentioned in the first paragraph. The distribution of this locative suffix is of immediate relevance to this study, and will be taken up in detail later on in the paper.

The set of locatives investigated in this study, namely those which take one of the three locative markers xu-, mu-, and ha-, are to be distinguished from the non-term, prepositional phrase type locatives whose prepositions constitute separate words. Contrast, for example, the locative in (1), carrying the prefix xu-, with the locative prepositional phrases in (2) with the sequence of prepositions inyuma ya or imbeli ya, consisting

of two separate words each:

- (1) jon a -tsi -a xu -mu -saala
 John subject -go -tense(T) locative class -tree
 marker(SM) marker(LM) marker (CM)3

'John went on the tree.'

- (2) jon a -tsi -a {inyuma}
 {imbeli} ya omu -saala
 John SM -go -T {behind}
 {infront} of CM3 -tree

'John went {behind
 {in front of} the tree.'

Evidence (more substantial than that provided by the orthographic conventions of the language) for the non-prepositional status of the locative markers xu-, mu-, and ha- comes from their not being subjected to a general constraint in the language against prepositional standing. This constraint is illustrated by the Relativization strategies in the language. Relative clauses in Olutssootso appear after the head NP, beginning with a relative pronoun generally agreeing in class with the head NP and in case marking with the target of Relativization. In addition to the relative pronoun, a pronominal copy of the target NP obligatorily appears after the preposition in a relative clause formed on the object of a locative preposition, whereas there is no such copy in a relative clause formed on a NP that is clearly not preceded by a preposition and which cannot be analyzed as an object of one. (3) constitutes an example of a relative clause formed on a prepositional phrase type locative:

- (3) in -zu e -yi -a jon a -tsi -a inyuma ya yiiyo
 CM9 -house relative -CM9 -RM John SM -go -T behind of class
 clause (nonsubject) (C)9
 marker(RM) demonstrative(D)

'The tree which John goes behind...'

Note that without the demonstrative copy yiiyo following the prepositions inyuma ya the relative clause would be ungrammatical. Relativization on NP's that are not objects of prepositions, on the other hand, does not require this additional pronominal copy of the target of Relativization in the relative clause. Examples (4) and (5) illustrate relative clauses

formed on subjects and direct objects respectively:

- (4) aba-saatsa a -ba -xol -a emi -limo...
 CM2-man RM -C2 SM -do -T CM4 -work
 'The men who do work...'
- (5) aba -saatsa a -ba -a en -dol -a...
 CM2 -man RM -C2 object -RM I -see -T
 marker(OM) (object)
 'The men whom I see...'

The non-prepositional phrase type locatives with the markers xu-, mu-, and ha- behave like regular non-prepositional phrase NP's in their choice of a Relativization strategy. Relativization of such locatives require no additional pronominal copy in the relative clause. The explanation is that these locatives do not include any prepositions so that their Relativization does not involve preposition standing, thus requiring no additional pronominal copy in the relative clause. Relative clauses formed on non-prepositional phrase NP locatives are illustrated in (6) and (7).

- (6) mu -shi -iro o -mw -a jon a -leer -a eshi -tabo...
 LM -CM7 -market RM -LM -RM John SM -bring T CM7 -book
 'In the market where John brings the books...'
- (7) xuu -n -zu o -xw -a jon a -tsi -a...
 LM -CM9 -house RM -LM -RM John SM -go -T
 'On the house on-where John goes...'

We have shown that the morphological evidence indicating that NP locatives, unlike all the other prepositional phrase type locatives, are not prepositional phrases is strongly corroborated by syntactic evidence. Not being prepositions, xu-, mu-, and ha-, the locative markers on NP locatives should be considered as prefixes indicating case and/or grammatical relation. Exactly what the grammatical relation of these NP locatives is will be discussed later on in the paper.

Locative NP's can be shown to be crucially different from prepositional phrase locatives in other respects as well. The nouns of the prepositional phrase locatives trigger class agreement on demonstrative pronominal forms, whereas the NP locatives govern locative marker agreement. Contrast, for example, the demonstrative constructions (8) and (9), which are formed on a prepositional phrase locative and a NP locative respectively:

- (8) inyuma ya omu -saala yukwo...
 behind of CM3 -tree demonstrative(D) C3
 'Behind that tree there...'

- (9) xu -mu -saala yu -xwo...
 on -CM3 -tree D -LM
 'On that tree on-there...'

In (8) the demonstrative yukwo agrees with omu-saala 'tree' in noun class, while in (9) the demonstrative yuxwo agrees with the locative class 17 marker xu-. Similar agreement differences hold for relative pronouns formed on prepositional phrase locatives and NP locatives. The relative pronoun e-yi-a in (3), for example, being formed on a prepositional phrase locative, agrees in class with the noun in-zu 'house', while the relative pronouns o-mw-a in (6) and o-xw-a in (7), being formed on NP locatives, agree with the locative classes 17 and 18 whose markers are mu- and xu- respectively.

It is interesting to note, however, that this difference in coding procedure triggered by the two types of locatives in demonstratives and relative pronouns does not extend to possessives. Possessive pronominal forms for both types of locatives carry class agreement, as examples (10) and (11) indicate:

- (10) inyuma ya tsi -siimba tsi -anje...
 behind of CM10 -lion CM10 -my
 'Behind my lions...'
- (11) xu -tsi -siimba tsi -anje /*xw -anje...
 on -CM10 -lion CM10 -my on -my...
 'On my lions...'

Returning to the differences between NP locatives and prepositional phrase locatives, another such difference concerns verbal agreement. NP locatives, when in subject position, govern subject agreement, while prepositional phrase locatives never do, (indicating perhaps, that the latter type cannot be promoted to subject position by any syntactic process(es) in the language):

- (12) xuu -n -zu xu -bal -a
 LM -CM9 -house locative -be warm -T
 (L) SM
 'It was warm on the house.'
- (13) *inyuma ya inzu yi -bal -a
 behind of CM9-house CMO -bewarm -T
 ('It was warm behind the house.')

Though the locatives in both sentences appear in subject position, the verb xu-bal-a in (12) agrees with the locative marker xuu-, whereas (13) is ungrammatical even though the verb yi-bal-a agrees with the prepositions inyuma ya and their object in-zu, both being of class 9.¹

Having established that NP locatives, marked by the prefixes xu, mu-, and ha, are distinct from prepositional phrase locatives with respect to the coding properties they trigger in relative pronouns, demonstratives, and on verbs, and with respect to the relative clause formation strategies they employ, we go on to show that their behavior with respect to accessibility to syntactic processes such as Passivization, Tough Movement, Clitic Pronominalization, and Topicalization is also different: locative NP's are accessible to all these processes, while prepositional phrase locatives are not.

Passivization in Olutsootso generally applies to structures such as (14) to produce structures such as (15), thus promoting a direct object to subject status and demoting the underlying subject to *chômeur* status:

- (14) jon a -leer -a eshi -tabo xulua mary
 John SM -bring -T CM7 -book for Mary
 'John brought the book for Mary.'

- (15) eshi -tabo shi -leer -w -a xulua mary neende jon
 CM7 -book CISM -bring passive -T for Mary by John
 marker(PM)

'The book was brought for Mary by John.'

Note that in (15) eshi-tabo the derived subject triggers class agreement on the verb. This rule of Passivization can also apply to sentences like (1) to produce passive structures like (16), where the NP locative has been promoted to subject status, triggering locative agreement on the verb:

- (16) xu -mu -saala xu -tsii -bw -a -xwo neende jon
 LM -CM3 -tree LSM -go -PM -T -locative by John
 clitic(LC)

'On the tree was gone by John.'

Though NP locatives can undergo Passivization, and thus be promoted to subject status regardless of whether or not the verb in the sentence belongs to the class of transitive verbs "traditionally" considered to govern Passivization, prepositional phrase locatives cannot under any circumstances be passivized into subject position. The application of Passivization to a structure like (2), for example, yields an ungrammatical output (17):²

- (17) *inyuma ya omu -saala yi -tsii -bw -a -ho neende jon
 behind of CM3 -tree C9SM -go -PH -T -LC by John
 ('Behind the tree is gone by John.')

In the same manner locative NP's can be shown to undergo Tough Movement, whereas prepositional phrase locatives cannot. Tough Movement in

Olutsootso is generally restricted in domain to direct objects only, the adjectives angu 'light, easy' and tinyu 'hard' preceded by the copula ni serving as Tough Movement triggers. The presumed underlying structure is attested on the surface in sentences such as (18):

- (18) oxu₃ -chama jon ni oxw -aangu
 CM15₃ -please John is CM15 -easy
 'To please John is easy.'

The Tough Moved version of (18) is (19); Tough Movement having raised the object of the embedded clause to matrix subject position:

- (19) jon ni omw -aangu w -oxu -chama
 John is CM1 -easy CM1 -CM15 -please
 'John is easy to please.'

Besides direct objects, NP locatives with the markers xu-, mu-, and ha- may undergo Tough Movement. Thus, for example, Tough Movement applies to (20) to yield (21):

- (20) oxu -leera eshi -tabo mu -shi -iro ni oxw -aangu
 CM15 -bring CM7 -book LM -CM7 -market is CM15 -easy
 'To bring a book in the market is easy.'

- (21) mu -shi -iro ni omw -aangu mw -oxu -leera -mwo eshi -tabo
 LM -CM7 -market is LM -easy LM -CM15 -bring -LC CM7 -book
 'In the market is easy to bring a book.'

It is not possible, however, to Tough Move prepositional phrase locatives, since this process would yield outputs with the prepositional phrase locative in matrix subject position. We have already noted that prepositional phrases cannot serve as subjects of sentences, so that one must exclude prepositional phrase locatives from the domain of the rules of Passivization as well as Tough Movement, possibly in terms of a general constraint on the language, restricting non-term prepositional phrases from assuming subject position. Given such a constraint, a sentence like (22), wherein a prepositional phrase locative has undergone Tough Movement to become subject, is ungrammatical:

- (22) *inyuma ya in -zu ni yi -angu yi -oxu -leera eshi -tabo
 behind of CM9 -house is CM9 -easy CM9 -CM15 -bring-LC CM7 -book
 ('Behind the house is easy to bring a book.')

The third syntactic process to which NP locatives are accessible while the prepositional phrase type are not is a Pronominalization rule that deletes a NP, copying it in terms of a clitic pronoun attached onto the verb. This type of Clitic Pronominalization applies to direct objects such

as eshi-tabo in (14) to produce a sentence like (23):

- (23) jon a -shi -leer -a xulua mary
 John SM -CM7 -bring -T for Mary
 'John brings it for Mary.'

eshi-tabo the direct object is pronominalized into -shi- an object pronoun in class agreement with its antecedent; -shi- then appears as a prefix on the verb. A locative NP such as mu-shi-iro 'in the market' in a sentence like (24) would be pronominalized into an agreeing locative pronoun mwo which like the direct object pronoun is cliticized onto the verb, (but unlike the case of the direct object, is cliticized as a suffix) to yield a sentence like (25):

- (24) jon a -leer -a eshi -tabo mu -shi iro
 John SM -bring -T CM7 -book LM -CM7 market
 'John brings the book in the market.'

- (25) jon a -leer -a -mwo eshi -tabo
 John SM -bring -T -LC CM7 -book
 'John brings the book (in) there.'

Prepositional phrase locatives could not be pronominalized in the same way as NP locatives without violating the general constraint against preposition stranding. If the object of the preposition alone were pronominalized and cliticized onto the verb, then the preposition would be stranded, resulting in an ungrammatical sentence. The deletion of the preposition, however, does not render the sentence any more grammatical than before. Thus Pronominalization of the prepositional phrase locative in (2), for example, in the form of a clitic on the verb, both with or without the deletion of the stranded preposition, generates the ill-formed constructions in (26):

- (26) *jon a -tsi -a -yiiyo (inyuma ya)
 John SM -go -T -CM9 LC (behind of)
 ('John goes behind (it)')

The only way to pronominalize the prepositional phrase locative inyuma ya omu-saala in (2) is (27), which is not a clitic-type Pronominalization:

- (27) jon a -tsi -a inyuma ya yu -kwo
 John SM -go -T behind of D -C3
 'John goes behind it.'

Another syntactic process to which NP locatives, contrary to prepositional phrase locatives, are accessible is Topicalization. Topicalization in Olutsootso applies on a post verbal NP, moving it to the left of the sentence, inserting after it a demonstrative pronominal element in agreement with it, and attaching as a prefix to the verb an object marker in agreement with the

Topicalized NP.⁴ To illustrate, in (28) the direct object aba-ana 'child' and in (29) the NP locative mu-shi-iro 'in the market' are Topicalized:

(28) aba -ana yaabo e(m) -ba -lol -a
 CM2 -child C2D I -them -see -T
 'Those children... those children, I see them.'

(29) mu -shi -iro yumwo jon a -mu -leer -a -mwo eshi tabo
 LM -CM7 -market LD John SM -L object -bring -T -LC CM7 book
 marker (OM)
 'In the market, John brings the book (in) there.'

Sentence (29) indicates that Topicalization bestows on the topicalized NP some object-like properties--at least, in as far as verbal marking is concerned. Such phenomena tempts one to speculate that Topicalization in this language perhaps involves a promotional step, such that the Topicalized Np is promoted to direct object position, at least with respect to coding properties, and possibly with respect to some behavioral properties as well.⁵ This is why in (29) the topicalized NP locative mu-shi-iro 'in the market' triggers both an object marker prefix and a locative clitic as a suffix on the verb.⁶ In any case, a prepositional phrase locative, unlike the NP locative, cannot undergo Topicalization, as (30) indicates:

(30) *inyuma ya omu -saala yukwo jon a -mu -leer -a -yukwo eshi -tabo
 behind of CM3 -tree C3D John SM -C3OM-bring -T -C3D CM7 -book
 ('Behind the tree, John brings the book there.')

We have thus far shown that in coding as well as behavioral properties NP locatives stand distinctly apart from prepositional phrase locatives. Furthermore, it has become apparent from their behavioral properties in terms of accessibility to certain syntactic rules (whether the rules directly effect grammatical relations or whether they are sensitive to them in some way) that NP locatives share many behavioral characteristics with direct objects--properties not shared by other grammatical relations in the language.⁷ It can be shown, for example, that besides the NP locatives in question, only direct objects (both derived and basic) can undergo the relation-changing rules of Passivization and Tough Movement to be promoted to subject position.⁸

It has been shown in examples (15) and (16) that Passivization can apply to direct objects and NP locatives respectively. It must be noted that in the case of NP locatives the verb governing Passivization is a directional intransitive verb, rather than a transitive verb, which usually governs

this rule. A number of directional intransitive verbs in Olutsootso govern Passivization, with some exceptions, among them -its 'come', for example, whose passive version sounds "funny" to native speakers.⁹ In order to substantiate the claim that only direct objects and NP locatives undergo Passivization, one has to show that Passivization does not apply to indirect objects. Indeed, the Passivization of the indirect object mary in (14), for example, yields the ungrammatical constructions in (31):

- (31) *mary -a -leer -w -a eshi -tabo (xulua)¹⁰ neende jon
 Mary SM -bring -PM -T CM7 -book (for) by John
 ('Mary is brought the book by John.')

However, if the indirect object mary in (14) is promoted to direct object position prior to Passivization, then Passivization yields a grammatical sentence. Though we do not provide irrefutable evidence for the derivation of sentences like (32) from those like (14), there is reason to believe that there exists a productive process in Olutsootso, somewhat equivalent to Dative Movement, whereby an "applied" suffix (-il/-el) is attached onto the verb making it benefactive, instrumental, or directional, the case marker denoting benefactive, instrumental, or directional is deleted, and the NP whose marker has been deleted is moved to direct object position. The Dative Movement rule would apply to (14), for example, to produce (32):¹²

- (32) jon a -leer -el -a mary eshi -tabo
 John SM -bring -applied -T Mary CM7 -book
 marker(AM)
 'John brings Mary the book.'

mary in (32), being a direct object, is accessible to Passivization, as shown in (33), while eshi-tabo the ex-direct object which has been demoted to chômeur status is inaccessible to the rule. This turns out to be indeed the case, as indicated by the ungrammatical (34) where eshi-tabo has been Passivized:

- (33) mary a -leer -el -w -a -eshi -tabo neende jon
 Mary SM -bring -AM -PM -T -CM7 -book by John
 'Mary is brought the book by John.'
- (34) *eshi -tabo shi -leer -el -w -a mary neende jon¹³
 CM7 -book CM7 -bring -AM -PM -T Mary by John
 ('The book is brought Mary by John.')

Having established one behavioral characteristic, involving accessibility to Passivization, shared by only the NP locatives and the direct objects in Olutsootso, the next step is to bring out other such properties

exclusively shared by the two relations. Tough Movement is another process that demonstrates such behavior. We have already shown in an earlier part of this paper that direct objects and NP locatives can undergo Tough Movement, whereas prepositional phrase locatives cannot; see sentences (19), (21), and (22) respectively. In order to establish that only direct objects and NP locatives can be promoted to become the subject of a higher clause, it is sufficient to show that indirect objects cannot undergo Tough Movement.¹⁴ Consider sentence (35):

- (35) oxu -leera eshi -tabo xulua mary ni oxw -aangu
 CM15 -bring CM7 -book for Mary is CM15 -easy
 'To bring a book for Mary is easy.'

The Tough Moved version of (35) is the ungrammatical (36):

- (36) *mary ni omw -aangu w -oxu -leera (xulua)¹⁵ eshi -tabo
 Mary is CM1 -easy CM1 -CM15 -bring (for) CM7 -book
 ('Mary is easy to bring a book for.')

(37), however, a paraphrase of (35), where mary is the direct object of a benefactive "applied" form of the verb leer 'bring', can be Tough Moved to produce the grammatical (38):

- (37) oxu -leer -ela mary eshi -tabo ni oxw -aangu
 CM15 -bring -AM Mary CM7 -book is CM15 -easy
 'To bring Mary a book is easy.'

- (38) mary ni omw -aangu w -oxu -leer -ela eshi -tabo
 Mary is CM1 -easy CM1 -CM15 -bring -AM CM7 -book
 'Mary is easy to bring a book to/for.'

Besides the relation-changing rules of Passivization and Tough Movement, there are syntactic processes which, though not relation-changing, are sensitive to grammatical relations, effecting in similar ways direct objects and NP locatives only. Two such syntactic processes are Pronominalization and Relativization.

Clitic Pronominalization has been shown to apply to direct objects and NP locatives in sentences (23) and (25) respectively, but not to prepositional phrase locatives, as illustrated by sentence (26). It remains to be shown that Clitic pronominalization does not apply to indirect objects either, so as to establish that the behavioral properties of NP locatives and direct objects in Clitic Pronominalization are not only similar, but also that they are not shared by other grammatical relations and non-terms in the language.¹⁵ Clitic Pronominalization, if applied to the indirect object mary in (14), would yield the ungrammatical (39):

- (39) *jon a -mu -leer -a eshi -tabo (xulua)¹⁷
 John SM -DM -bring -T CM7 -book (for)
 ('John brought for her a book.')

We can show that even if the preposition is not stranded (as it is in (39)), the indirect object is still not acceptable to Clitic Pronominalization. By adding the demonstrative wuuwo 'that one (person)' after xulua, we have prevented the standing of the preposition; but the sentence, with the indirect object cliticized onto the verb, is still ungrammatical:

- (40) *jon a -mu -leer -a eshi -tabo xulua wuuwo
 John SM -DM -bring -T CM7 -book for Cl-D
 ('John brought her_a book for her.')

The argument involving Relativization follows along the lines of the Clitic Pronominalization argument. Having shown two different Relativization strategies, one for prepositional phrases and the other for NP's, due to the constraint against preposition standing, one expects indirect objects to be relativized by the strategy used for prepositional phrases, since the indirect object case markers appears in front of the indirect objects in the form of a separate word.¹⁸ Indeed, unlike the direct objects and the NP locatives, the indirect objects, require a pronominal copy of the target NP when relativized, so that the relative clause would be ungrammatical without it:¹⁹

- (41) *aba -saatsa a -ba -a en -leer -a eshi -tabo (xulua)...
 CM2 -man RM -C2M-RM I -bring -T CM7 -book (for)
 ('The men for whom I bring the books...')

We have seen, therefore, that direct objects and locative NP's use a different Relativizing strategy than that used by indirect objects and other prepositional phrases. In order to completely distinguish direct objects and NP locatives as one set, different from all other grammatical relations with respect to Relativization, the Relativization strategy used for subjects remains to be examined. Relativization of subjects involves a strategy slightly different from that which is used for direct objects and NP locatives, the difference being that in the former, the relative pronoun has only one relative marker affix on it, as example (42) indicates:

- (42) aba -saatsa a -ba -xol -a emi -limo...
 CM2 -man RM -C2SM -do -T CM4 -work
 'The men who work...'

Thus locatives and direct objects are set apart from other NP's with respect to the rules of Relativization and Clitic Pronominalization,

which are sensitive to grammatical relations, as well as with respect to relation-changing rules such as Passivization and Tough Movement, making imperative an analysis which accounts for the similarities between the two. Any analysis that sets apart NP locatives from direct objects, as different grammatical relations (or categories totally distinct from each other, misses the generalization that the NP locatives undergo the same relation-changing processes (Passivization and Tough Movement) that underlying and derived direct objects do. Such an analysis would also miss the generalization that the two relations/categories employ the same strategies for (each of) the Relativization and Pronominalization processes, as opposed to subjects, on the one hand, and as opposed to other grammatical relations like indirect objects, etc. on the other.

The commonly accepted analysis (e.g. Trithart, 1975) that such NP locatives, typically found in Bantu languages, are prepositional phrases not only misses the above generalizations, but also violates the Universal Subjectivization Constraint (Johnson, 1974), and questions its universality. The Universal Subjectivization Constraint states:

- (43) If a certain position on the Relational Hierarchy²⁰
 subject > direct object > indirect object > non-term
 undergoes a subjectivization rule, then all non-subject
 positions above it on the Relational Hierarchy must be
 able to undergo that rule.

An analysis wherein the NP locatives are considered to be prepositional phrases would necessarily violate (43). As prepositional phrases, such NP locatives would be included under non-terms, forcing an analysis that allows for some non-terms and direct objects only to subjectivize via Passivization and Tough Movement, thus leaving a gap of non-subjectivizable NP's on the Relational Hierarchy over the range of indirect objects--indirect objects not being directly accessible to these rules. Such an analysis would either have to reject altogether the Universal Subjectivization Constraint as invalid, or resort to some ad hoc revision of it (e.g. Trithart, 1975²¹).

Evidence has been provided in terms of behavior with respect to relation-changing rules, and from rules which are sensitive to grammatical relations, to suggest that NP locatives have the same grammatical relation to the verb as direct objects do. On the other hand, there is also

evidence suggesting that NP locatives and direct objects are distinct from each other.

One such evidence is the fact that NP locatives and direct objects trigger different coding processes. First of all, a relative pronoun formed on a direct object agrees with the class of the head NP, whereas a relative pronoun formed on a NP locative agrees with the locative marker of the head NP. Contrast examples (5) with (6) and (7). The same discrepancy in agreement behavior can be found in verbal agreement triggered by a direct object and that triggered by a NP locative, once they are subjectivized as in passive sentences. A subjectivized direct object triggers class agreement on the verb whereas a subjectivized NP locative triggers verbal agreement with the locative marker.²² Contrast example (15) with (16). Another difference between the two is that Clitic Pronominalization involves the appearance of a verbal agreement prefix for direct objects, whereas the verbal agreement for NP locatives is in the form of a suffix, as shown in (23) and (25) respectively.

There exists another major coding difference between direct objects and NP locatives. A NP locative leaves a locative clitic on its verb, if it undergoes a change in grammatical relation, whereas a direct object leaves no clitic on its verb when undergoing a change in grammatical relation. Contrast the subjectivized direct object and NP locative in the passive sentences (15) and (16) respectively. The verb in (15) shi-leer-w-a is made up of the subject marker, followed by the verb stem, the passive suffix, and the tense marker. The verb in (16) xu-tsii-bw-a-xwo has one suffix in addition to the elements found in the verb in (15), namely -xwo, a locative clitic indicating the underlying grammatical relation of the subject. The same phenomenon is true of NP locatives when subjectivized via Tough Movement, as sentence (21) shows. The embedded verb in (21) carries a locative clitic -mwo indicating the underlying grammatical relation of the matrix subject with the embedded verb.

Besides the above differences in the coding properties they trigger, there is another not less substantial argument for considering direct objects and NP locatives as distinct relations, despite their main similarities. There is sufficient motivation for positing a rule of Locative Marker Deletion

in Olutsootso, whereby a NP locative is transformed into a direct object. The immediate output of this rule is not attested in the language, so that such an output serves as an intermediate structure for rules such as Pronominalization, Relativization, Topicalization, Passivization, and Tough Movement, which treat the NP locatives whose markers have been "stripped off" as if they were direct objects.

Clitic Pronominalization of mu-shi-iro in (24), results in (25) and a syntactic variant of it--(44), where the clitic pronoun is in form of an object pronoun reflecting class agreement with shi-iro, thus indicating that shi-iro has become the object, probably at a stage in the derivation prior to Clitic Pronominalization. In addition, there is a locative clitic -mwo on the verb, indicating that the underlying NP locative has undergone some change in grammatical relation.

- (44) jon a -shi -leer -a mwo ebi -tabo²³
 John SM -C7OM -bring -T -LC CM8 -books
 'John brings the books in it.'

Likewise, Relativization of NP locatives as in (6) and (7) have syntactic variants wherein the locative markers have been deleted from the NP locatives, so that the relative pronoun includes an object marker agreeing in class with the "stripped" NP, and the verb has a locative clitic attached to it, indicating a change in the grammatical relation borne by the target of Relativization. The syntactic variants of (6) and (7) are (45) and (46) respectively:

- (45) eshi -iro e -shy -a jon a -leer -a -mwo eshi -tabo...
 CM7 -market RM -C7M RM John SM -bring -T -LC CM7 -book
 (object)
 'The market which John brings a book in'...
- (46) in -zu e -yi -a jon a -tsi -a -xwo...
 CM9 -house RM -C9M -RM John SM -go -T -LC
 (object)
 'The house which John goes on...'

Topicalized locative NP's as in (29) were hypothesized earlier in the paper to have undergone objectivization, even without being "stripped" of their locative markers, so that they trigger object agreement and leave a locative clitic on the verb, indicating that they have undergone a change in grammatical relation. Sentences like (29) have their syntactic variants in sentences such as (47), where the Topicalized NP locative, "stripped off"

of its locative marker, is clearly a direct object, triggering object agreement and leaving a locative clitic on the verb indicating that the locative NP has undergone a change in grammatical relation:

- (47) eshi -iro yiisho jon a -shi -leer -a -mwo eshi -tabo
 CM7 -market C7D John SM-C7OM -bring -T -LC CM7 -book
 'That market John brings the book in it.'

Passive and Tough Moved sentences with NP locatives as subjects also have syntactic variants in which the subjectivized NP's are "stripped off" of their locative markers, the verbs agreeing with them in class, as with subjectivized direct objects. Thus, for example, the passive (16) has a variant in (48), while the Tough Moved (21) has its variant in (49):

- (48) omu -saala ku -tsii -bw -a -xwo neende jon
 CM3 -tree C3SM -go -P1 -T LC by John
 'The tree was gone on by John.'
- (49) eshi -iro ni eshi -aangu shi -oxu -leer -a -mwo eshi -tabo
 CM7 -market is CM7 -easy CM7 -CML5-bring -T -LC CM7 -book
 'The market is easy to bring a book in.'

It should be clear, then, that NP locatives are different from direct objects, not only because they have different coding properties from those of direct objects, but also because NP locatives can be transformed into direct objects by "stripping off" their locative markers, as the above data has shown.²⁴

An analysis which provides the basis for capturing the generalization that direct objects and NP locatives share certain behavioral properties and which at the same time allows for differences in coding properties, can only be one wherein NP locatives and direct objects constitute distinct subrelations within a single but broader grammatical relation which we shall call "supra direct objects" simply for lack of a better term.²⁵

There are other works (e.g. Sheintuch, 1976) which show the need for a finer subclassification of grammatical relations for certain languages. Such language-specific sub-grammatical relations are generally semantically specifiable, basic (as opposed to derived) grammatical relations. Further investigation of grammatical relations in various languages should clarify whether such language-specific subrelations are motivated and governed by universal principles, and if so, an attempt should be made towards the discovery of such principles.

Footnotes

*We wish to convey our special thanks to Charles Kisseberth for helpful discussions and comments. This research was supported in part by NSF grant SOC 75-0024.

¹Though not a noun, inyuma ya resembles a class 9 word inyuma followed by the class 9 associative marker y-a, so that if it would at all trigger subject agreement, it would be in the form of the prefix yi-.

²Note that earlier we cited (13) to demonstrate that prepositional phrase locatives cannot control subject agreement in a sentence; (17), then, would simply serve as another such example.

³CM15 is the infinitive marker.

⁴Due to the constraint against preposition standing, only non-prepositional phrase NP's are eligible for Topicalization; thus chômeurs resulting from the equivalent of the English Dative Movement (ex-direct objects) can undergo Topicalization, while those resulting from Passivization (ex-subjects), being predated by the preposition neende, cannot.

⁵The justification for analyzing Topicalization as a promotion rule in Olutsootso, though a very interesting issue, will not be taken up in this paper, due to its rather marginal relevance to the topic as weighed against its complexity.

⁶We will show later on in the paper that the appearance of a locative clitic as a suffix on a verb indicates that the NP locative in the sentence has undergone a change in grammatical relation.

⁷We are assuming Postal and Perlmutter's (unpublished lectures) classification of grammatical relations to be correct, so that the possible universal grammatical relations are subject, direct object, and indirect object, with all other NP's being non-terms--either oblique ones which were never terms at any stage of the derivation of the sentence, or chômeurs which held a grammatical relation to the verb only at some earlier stage of the derivation of the sentence.

⁸In Olutsootso there are some verbs that take double objects, one or the other of which is generally more accessible to certain processes. The exact basis on which the grammatical relations of the two objects of a given verb are determined is not of any immediate concern in this paper.

⁹See Dalgish (1976) for a more complete list of directional intransitive verbs governing Passivization in this language.

¹⁰Notice that the sentence is still ungrammatical if the preposition xulua meaning 'for' is deleted, so that the ungrammaticality of (31) is not due to a violation of the constraint against preposition stranding.

¹¹This type of proposal is made by Kimenyi (1976) and Givon (1976) for the promotion of indirect objects "datives" in Givon's terminology) and of instrumentals in the Bantu languages of Kĩ Nyanuanda and Bemba, which are of course related to Olutsootso.

¹²It is neither within the scope nor within the goals of this research to show whether the structure in (32) is a derived or underlying one--that

is to say whether or not there exists a rule of Dative Movement in the language. The arguments for and against either position are not decisive and clear-cut. In any case, it should be made clear that the absence of a rule of Dative Movement does not effect our argument in any crucial way. Without the Dative Movement analysis, (31) would still be ungrammatical because mary an indirect object has been passivized. In (33), on the other hand, mary would be considered as a basic direct object, undergoing Passivization to yield a grammatical output. However, we strongly suspect that the analysis which postulates a rule of Dative Movement is more motivated; so for the purposes of this paper we shall assume such a rule to exist.

¹³Please note that whereas such sentences are ill-formed in Olutsootso and in Chi-mwini, they are grammatical in other Bantu languages such as Swahili and Ki-meru, for example.

¹⁴Indirect objects are nevertheless objects of prepositions. In order to show that only direct objects can undergo Tough Movement, one should test the objects of double object verbs. The behavior of such double object constructions is complex, and though if properly analyzed, it could shed some light on the issue, such an analysis has not yet been conducted by us.

¹⁵See footnote 10.

¹⁶It is unnecessary to check Clitic Pronominalization of subjects for its similarities to and differences from Clitic Pronominalization of direct objects and NP locatives, because the appearance of a subject clitic pronoun (an agreement marker) on the verb is obligatory in all Olutsootso non-imperative sentences, so that the Pronominalization of a subject would simply involve its deletion.

¹⁷See footnote 10.

¹⁸Charles Kisseberth, (correctly) pointed out to us that datives like xulua NP, being prepositional phrases, are expected to behave like all other prepositional phrases in the language. In order to distinguish direct objects from other objects of the language, one's attention has to be focussed primarily on unmarked NP's. The lack of distinction between marked and unmarked objects, therefore, reflects one of the limitations of Postal and Perlmutter's theory of Relational Grammar.

¹⁹The grammatical version for (41) would be:

- (i) aba -saatsa a -ba -a en -deer -a eshi -tabo xulua ya -abo
 CM2 -men RM -CM2 -RM I -bring-T CM7 -book for D -CM2
 'The men for whom I bring the books...'

where a pronoun, demonstrative copy yaabo 'they (class2)' appears after the preposition.

²⁰The Relational Hierarchy, which roughly correlates with Keenan and Comrie's (to appear) NP Accessibility Hierarchy, ranks the relations in such a way (with subjects in the highest position), as to enable the formulation of linguistic universals using the hierarchy, the constraint in (43) constituting such an example.

²¹Trithart's Revised Subjectivization Constraint is circular:

- (i) If a language can subjectivize an NP low in the Relational Hierarchy, then it can subjectivize NP's in all intermediate positions, where subjectivizable is defined recursively as follows:

- a) X is subjectivizable if L has a rule $X \rightarrow \text{Subject}$
- b) X is subjectivizable if L has a rule $\rightarrow Y$, where Y is subjectivizable.

²²Note that it is possible to analyze the locative marker as a class prefix, so that the coding processes for NP locatives and direct objects would appear to be similar. However, it can be shown that the locative NP has a class prefix of its own, other than the locative marker, which must under the circumstances, be interpreted as a case marker. There are sentences in which the locative NP can be separated from its locative prefix, and then undergo the rules discussed above. When this happens, all agreement is with the NP, and not with the locative marker. See Dalgish 1976 for some examples. Also, see the discussion, following in the text.

²³The object ebi-tabo 'books' is substituted for eshi-tabo 'book' simply to eliminate the possibility that the C7OM would be "agreeing" 'with book', and not -shi-iro (class 7) 'market'. If the OM in (44) were agreeing with 'books', the C8OM -bi would appear on the verb, instead of the -shi C7OM, which does occur.

²⁴Note that prepositional phrase locatives, unlike NP locatives, cannot be "stripped off" of their prepositions due to the general constraint against preposition standing.

²⁵There seems to be one type of counterexample, indicating that NP locatives can also be underlying subjects, as shown by the lack of appearance on the verb of the locative clitic which designates that the NP locative has undergone a change in grammatical relation. See, for example, (i):

- (i) xuu -n -zu xu -bal -a
 LM -CM9-house LSM -be warm -T
 'On the house was warm.'

Though we admit that we have not looked into this matter carefully, we offer a suggestion of what may be happening here. Based on the observation that the equivalent of such sentences in English and many other languages are generally either subjectless or have a dummy element (e.g. it, in English) for subject, as (ii) demonstrates:

- (ii) It was warm in the house.

we speculate that sentences such as (i) are underlyingly subjectless, and that the NP locatives have been promoted to subject position via a once productive syntactic process, triggering a locative clitic on the verb. Historically, however, this process might have lost its productiveness so that the output pattern is no longer recognized as derived, but basic causing the gradual loss of the locative clitic on the verb. One could also postulate that the clitic appears only when the locative assumes a grammatical relation which was previously "filled". In any case, more research must be devoted to this matter before any conclusions can be drawn.

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OBJECT RELATIONS IN KIMERU CAUSATIVES ¹

Kathryn Speed Hodges

In Kimeru, a language of Eastern Kenya², a verb may be followed by one or more unmarked NP objects. It will be demonstrated that these unmarked NPs each possess the characteristics of a direct object, which poses a problem for a theory of grammar based on relational hierarchies. It will be argued that the category of object can possess a hierarchy internal to itself to which causative clause unions are sensitive.

The theories of grammar alluded to here are those commonly clustered under the heading "relational grammar", which was formally introduced by Postal and Perlmutter (1974) and later expanded by Keenan and Comrie (forthcoming), and others. The theory takes as basic the terms "subject", "object" and "indirect object", instead of the categories "NP", "VP", etc., as in traditional transformational grammar. These terms represent relations that an NP may have to a V, and rules that change relations may refer directly to them.

The Keenan-Comrie Accessibility Hierarchy (Keenan and Comrie, forthcoming) claims that if relation changing rules apply to less accessible NPs, then they will also apply to more accessible NPs. Subjects are universally more accessible than direct objects (DO), which are in turn more accessible than indirect objects (IO). Finally, the various "oblique categories" - locatives, possessive phrases, agents of passives - are the least accessible of all. Thus, if passive is stated as a rule that promotes a term to subjecthood and it operates on IOs in a given language, it should be the case that DOs undergo passive also.

Along with this hierarchy, in the early literature, go laws such as "the relational annihilation law" (Postal and Perlmutter, 1974). This states that the promotion of a term to a higher slot on the accessibility hierarchy (AH) will be accompanied by the demotion of the NP that originally held that relation to the bottom of the AH. It can then bear no relations to the verb

(becomes a chomeur). In English, the underlying subject of a passive is demoted to a "by" phrase and is no longer available for promotion by any subsequent application of passivization, or any other rule referring to terms. Early claims (Postal and Perlmutter, 1974) also stated that each sentence has just one S, DO or IO.

CLAUSE UNION

There has been a tendency to analyze causatives, in languages with productive morphological causative constructions, as containing a higher verb of causation which unites with a verb in a lower complement sentence (Comrie, 1976). The immediate problem if the lower clause is to combined with the higher, is what relation to assign the lower clause subject (LS), since two subjects are generally disallowed. Comrie's paradigm case (1976) claims that clause union will be sensitive to the AH.

The displaced subject will move down the AH, taking the highest relational position possible. Since DO is the next highest term after subject, the LS will attempt to move into DO position. If the LS finds the DO position empty, it can take on this relation and will appear as a DO. This is the case for intransitives, giving the appearance in the surface sentence that the intransitive verb has received an object. If the lower sentence has a DO (LDO), then the LS will find the DO position filled. In the ideal case, the LS will move one step lower on the AH and become an IO. If both positions are filled, the LS will become an oblique NP or will be deleted from the sentence.

Needless to say, counterexamples have arisen to various aspects of this strong statement. In particular, Bantu languages often provide difficulties since in many of them it is not apparent which NP following the verb should be considered the DO and which the IO. In traditional analyses of some Bantu languages, this question was avoided by calling the NP closest to the verb, and which controlled the object prefix on the verb, the primary object. The NP following it was called the secondary object (Doke, 1935). The problem seems to center in the counter-

intuitive nature of the labels direct and indirect object, since the primary object often has the reading of a beneficiary or recipient, as though it were an IO, and the secondary object often receives the consequences of the verb's action, as though it were a DO. Kisseberth and Abasheikh (1976), working on the Bantu language Chi-Mwiini, also comment on the difficulty of defining objects, concluding that the features of direct objecthood are shared by several NPs.

Comrie (1976) points out these problems in Swahili causatives. He shows that it is the semantic beneficiary or recipient which bears all the characteristics of DO - ability to passivize in preferred sentences and government of verb agreement. He shows also that the LS in Swahili causatives possesses these properties of DO, even in cases where the lower sentence contained an LDO in underlying structure. Thus, instead of "hopping over" the LDO, the LS appears to usurp its place. The LDO ceases to govern verb agreement. The predictions for relational movements (that the LS takes the highest unfilled slot) seem to be contradicted by the evidence from Swahili.

It will be shown here that the causative object situation in KiMeru cannot be adequately explained by the original clause union hierarchy. The LS in KiMeru does not take the position of a term lower in rank than DO when it is faced with a filled DO position. Neither does the clause union process operate as in Swahili - the KiMeru LS does not become the primary DO, displacing the LDO. Rather, it will be claimed that the two NPs following the causative verb share the features of objecthood, and are both best considered to be DOs. Furthermore, these objects have relative strengths of objecthood, exhibiting a hierarchy within the relation of DO.³ Clause union is sensitive to this object-internal hierarchy and will be shown to operate in more-or-less its original form once the object hierarchy is recognized.

KIMERU

As is common in Bantu languages, KiMeru possesses a noun-

class system. Each noun is prefixed by a class marker; and verbs, adjectives, and demonstratives are prefixed with a marker that agrees with the noun. The verb can carry suffixes or extensions that alter its meaning in various ways. Of interest here is the causative suffix formed by the apparently discontinuous constituent /ith...i/. A tense or aspect suffix can appear between the two parts of the causative extension. Also to be considered is the applied extension, formed by a suffix /-ir-/, which normally follows the tense suffix and can appear, along with the tense, between the various parts of the causative constituent. The verb stem can have prefixed to it an object prefix (OP). Only one OP can occur in Kimeru, and only in the absence of the object to which it refers.^{4,5}

The Causative

Normally, intransitive verbs cannot be followed by unmarked objects, as in (1a) or (1c). But when suffixed by the causative, an object may follow as in (1b) and (1d).⁶

1. a. *Muntu ni-a-in-ag-a kaana.

Person Ag-dance-T child

*The person dances the child.

- b. Muntu ni-a-in-ith-ag-i-a kaana.

Person Ag-dance-C-T-C child

The person makes the child dance.

- c. *Muntu ni-a-thogan-ag-a kaana.

Person Ag-think-T child

*The person thinks child.

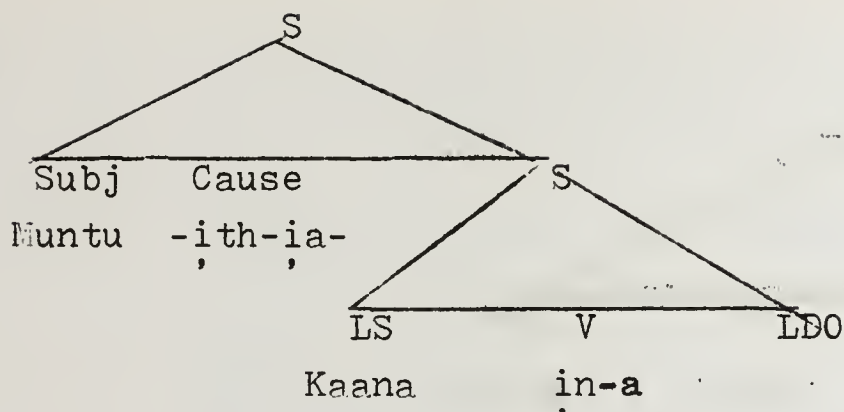
- d. Muntu ni-a-thogan-ith-ag-i-a kaana.

Person Ag-think-C-T-C child

The person makes the child think.

If the causativized intransitives are analyzed as having a bisentential source, then the object following the causative verb is understood as the subject of a lower intransitive verb (see Figure I).

I.



As would be expected, the causative allows two objects to follow transitive verbs that normally take only one object:

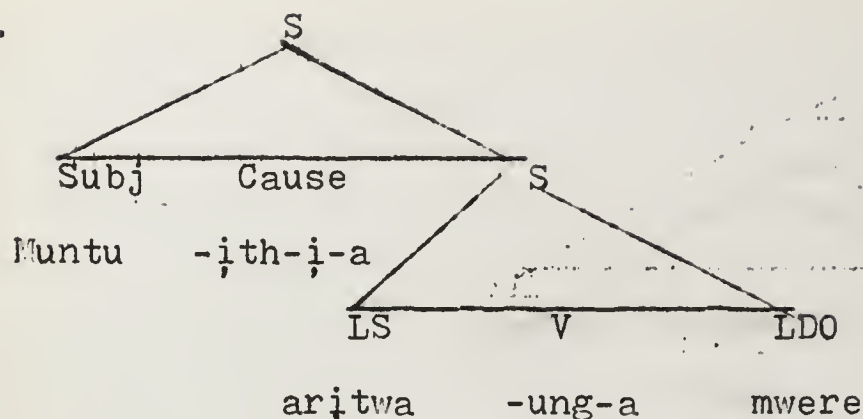
2. a. *Muntu ni-a-k-ung-ag-a aritwa mwere
 Person Ag-T-weed-T students millet
 *The person was weeding the students millet.
- b. Muntu ni-a-k-ung-ith-ag-i-a aritwa mwere.
 Person Ag-T-weed-C - T--C students millet
 The person was making the students weed millet.
- c. *Ni-a-tum-ag-a kaana nguo.⁷
 Ag-sew-T child clothes
 He sews the child clothes.
- d. Ni-a-tum-ith-ir-ie kaana nguo.
 Ag-sew-C---T--C child clothes
 He caused the child to sew clothes.

But the language will not permit three NPs to follow the verb even in causatives combined with inherently two-object verbs:

3. a. Muntu ne-a-ritan-ag-a kaana kiswahili.
 Person Ag-teach-T child Swahili
 The person teaches Swahili to the child.
- b. *Muntu ne-a-ritan-ith-ag-i-a kaana muka kiswahili.
 Person Ag-teach-C - T-C child woman Swahili
 The person causes the child to teach Swahili to the woman.

If the causatives followed by two NPs are analyzed as deriving from a bisentential source, then the NP immediately following the verb can be understood as the LS (subject of a lower S) and the second NP can be understood as the LDO (object of the lower S).

II.



In fact, it is the normal case that the LS - or causee - immediately follows the verb. Additional examples follow:

4. a. Muntu ni-a-ku-ryug-ith-ag-i-a muka yo.
 Person Ag-T-cook-C - T - C woman it
 The person was making the woman cook it (i.e. animal).
- b. ?Muntu ni-a-ku-ryug-ith-ag-i-a yo muka.
 Person Ag-T-cook-C - T - C it woman
 ?The person was making it (i.e. animal) cook the woman.
- c. Muntu ni-a-gur-ith-ag-i-a sukulu yuku.⁸
 Person Ag-buy-C - T - C school book
 The person causes the school to buy books.
- d. ?Muntu ne-a-gur-ith-ag-i-a yuku sukulu.
 Person Ag-buy-C - T - C book school
 ?The person causes the books to buy the school.

The sentences in (4b) and (4d) can only be understood with the bizarre readings that accompany them. The NP immediately following the verb must be understood as an LS - it cannot be read as an LDO even to save the sentence from anomaly. Example (5) is a case with two human actors and shows that reversing the order reverses the meaning:

5. a. John ni-a-ku-thik-ith-i-a muntu kaana.
 Ag-T-bury-C - C person child
 John is causing the person to bury the child.
- b. John ni-a-ku-thik-ith-i-a kaana muntu.
 Ag-T-bury -C - C child person
 John is causing the child to bury the person.

It appears, then, that the NP immediately following the verb is unambiguously understood as the LS.^{9,10}

The "classical" approach to clause union outlined earlier would predict, that in the case of two objects, the LS would assume the position of indirect object. Using ability to

passivize or to control the object prefix as tests, it can be shown that the LS and LDO both appear to have properties of direct objecthood. Consider the OP test first:

6. a. Ni-a-ku-mi-rug-ith-ag-i-a muka.
 Ag-T--OP-cook-C--T--C woman
 He was making the woman cook it (i.e., animal).
 b. Muntu ni-a-ku-mu-rug-ith-ag-i-a yo.
 Person Ag-T--OP-cook-C--T--C it (i.e., animal).
 The person was making him/her cook it (i.e. animal).

In (6a), the LDO (it-meat) is marked as an object prefix; but in (6b) the LS (him/her) is marked. Again, in (7), the same phenomenon occurs:

7. a. Ni-a-ku-j-ung-ith-ag-i-a bo.
 Ag-T-OP-weed-C--T--C them
 He was causing them to weed it (i.e., millet).
 b. Ni-a-ku-bo-ung-ith-ag-i-a ju.
 Ag-T-OP-them weed-C-T-C it
 He was causing them to weed it (i.e., millet).

In (7a), the LDO (referring to the thing weeded) is marked. But, in (7b), the object prefix is understood as referring to the LS (the ones doing the weeding). It seems, then, that both NPs following the verb possess the property of controlling the object prefix.

Both NPs can also be passivized:¹¹

8. a. Ni-ba-k-ung-ith-ag-u-a ju ni Muntu.
 Ag-T-weed-C---T-Pass-it by person
 They were caused to weed it (millet) by the person.
 b. Ni-ju-k-ung-ith-ag-u-a muka ni muntu.
 Ag-T-weed-C---T-Pass woman by person
 It (millet) was caused to be weeded by the woman
 by the person.
 9. a. Ni-n-gur-ith-ir-u-e rio ni muntu.
 Ag-buy-C---T-Pass-it by person
 I was made to buy it (book) by the person.
 b. Yuku ni-ri-gur-ith-ag-u-a yo ni muntu.
 Book Ag-buy-C---T-Pass it by person
 The book is caused to be bought by the woman by
 the person.
 10. a. Muka ni-a-ku-rug-ith-ag-u-a yo ni muntu.
 Woman Ag-T-cook-C---T-Pass it by person
 The woman was being caused to cook it by the person.

- b. Yo ni-rug-ith-ag-u-a muka ni muntu.
 It Ag-cook-C--T-Pass woman by person
 It is caused to be cooked by the woman by the person.

In each of the (a) sentences in (8)-(10), the LS has passivized. In each of the (b) sentences, the LDO has been promoted by passive. Both NPs possess the ability to be directly promoted by this rule.

That non-direct objects are not marked as OPs and do not undergo passive is demonstrated in the sentences of (11) and (12). The sentences of (11) show that objects of prepositions cannot be referred to by OPs. The sentences of (12) indicate that these objects cannot be promoted by passive.

11. a. *Muntu ni-a-mu-tum-ith-ag-i-a baruga kiri.¹²
 Person Ag-OP-send-C---T--C letter to
 The person causes the letter to be sent to him/her.
- b. *Muntu ni-a-mu-tum-ith-ag-i-a baruga kiri muka.
 Person Ag-OP-sent-C---T--C letter to woman
 The person causes him/her to send the letter to the woman.
- c. *Muntu ni-a-mu-gur-ith-ag-i-a yuku re-a
 Person Ag-op-buy--C---T--C book of/for
 The person causes the book to be bought of/for him/her.
- d. Muntu ni-a-mu-gur-ith-ag-i-a yuku re-a muka.
 Person Ag-OP-buy--C---T--C book of/for woman
 The person causes him/her to buy the woman's book.
12. a. *Kaana ni-ka-ritan-ag-w-a kiswahili kiri
 Child Ag-teach-T-Pass Swahili to
 *The child is taught Swahili to.
- b. *Kiri kaana ni-ka-ritan-ag-w-a kiswahili
 to child Ag-teach--T-Pass Swahili
 To the child is taught Swahili.
- c. *Muka ni-a-tum-ag-w-a baruga re-a.
 Woman Ag-send-T-Pass letter for/of
 *The woman is sent the letter for.
- d. *Re-a muka ni-a-tum-ag-w-a baruga.
 For/of woman SP-send-T-Pass letter
 For the woman is sent the letter.
- e. *Muka ni-a-tum-ith-ag-u-a baruga kiri
 Woman Ag-sent-C--T-Pass letter to
 *The woman is caused to be sent the letter to.

f. *Kiri muka ni-a-tum-ith-ag-u-a baruga.

To woman Ag-send-C--T-Pass letter

To the woman the letter is caused to be sent.

It is not possible to draw a distinction between the objects following the causative verb as clearcut and broad as that implied by the IO/DO dichotomy, since both exhibit the same qualities of direct objecthood. Thus, it is futile to explain this clause union phenomenon as a process whereby the LS assumes the relation of a term lower-ranked than DO on the accessibility hierarchy.

Comrie's approach to Swahili is also of no assistance. The LDO in KiMeru has a much stronger relationship to the verb than that claimed for the LDO in Swahili, which no longer controlled the object prefix and which could only passivize in less preferred sentences (1976). It cannot be claimed for KiMeru that the LDO has been displaced in favor of the LS or demoted in any way. Indeed, for KiMeru it must be concluded that the LS and LDO share DO status.

The Applied Extension

Another source of DOs exists in KiMeru - from the applied or benefactive extension. Sometimes called the prepositional form of the verb, this extension allows a verb to have an extra object in simple sentences:

13. a. *Muntu ni-a-in-ag-a kaana.

Person Ag-dance-T child

*The person dances the child.

b. Muntu ni-a-in-ag-ir-a kaana.

Person Ag-dance-T-A child

The person dances for the child.

14. a. *Muka ni-a-ku-rug-ag-a muntu nyama.

Woman Ag-T-cook--T person meat

*The woman was cooking person meat.

b. Muntu ni-a-ku-rug-ag-ir-a muka nyama.

Person Ag-T-cook--T--A woman meat

The person was cooking meat for the woman.

The applied object (AO) takes the place next to the verb, which as we have seen, was also taken by the LS. It is possible to conclude that the relevant consideration for the

order of AO relative to DO is governed by humanness versus inanimateness. Possibly the AO precedes the LDO because of restrictions on positioning humans, animates, and inanimates in relation to each other.¹³ Since beneficiaries or recipients will tend to be human, the AO tends to precede. But this position must be abandoned. The sentences in (15) show that there is no constraint against inanimates preceding animates or humans in applied sentences.

15. a. Ni-a-gur-ag-ir-a nyamba kuru.
 Ag-buy-T--A house dog
 He buys a dog for the house.
- b. Ni-a-gur-ag-ir-a kuru nyamba.
 Ag-buy-T--A dog house
 He buys a house for the dog.
- c. Ni-a-ɕu-ag-ir-a ngari ndrege.
 Ag-find-T-A car driver
 He finds a driver for the car.
- d. Ni-a-ɕu-ag-ir-a ngari muntu.
 Ag-find-T-A car person
 He finds a person (i.e. driver) for the car.
- e. Ni-a-tum-ag-ir-a nyamba muntu.
 Ag-send-T-A house person
 He sends a person for the house.
- f. ?Ni-a-tum-ag-ir-a muntu nyamba.
 Ag-sends-T-A person house
 ?He sends a house for the person.

The presence of the AO in this position could be accounted for by assuming it was simply generated as it appears. But the similarity in appearance of the sentences in (13) and (14) to an English dative moved sentence might suggest that the AOs originate as IOs in prepositional phrases. The AOs are moved to DO position by a rule that promotes IOs to DOs.

Such an approach has been argued against by Gary and Keenan (forthcoming) for Kinyarwanda. They base their objections on the lack of prepositional forms bearing a close semantic rela-

tionship to the applied extension. Kisseberth and Abasheikh (1976) have noted this lack of identity between prepositional meanings and the applied extension in Chi-Mwi:ni.

In the English sentences in (16) and (17), the dative moved sentences are very close, if not identical, in meaning to the prepositional forms from which they are supposedly derived. In fact, it is this identity of readings which lends credence to a dative movement transformation in English.

16. a. John bought a book for Mary.

b. John bought Mary a book.

17. a. John sent a letter to him.

b. John sent him a letter.

In KiMeru, the prepositional forms roughly corresponding to the applied extension can be expressed as in (18) and (19).

18. a. Ni-a-gur-ith-ag-i-a muntu yuku re-a sukulu.

Ag-buy-C---T--C person book of school

He makes the person buy a book for/from/of the school.

b. Ni-a-gur-ir-e sukulu yuku.

Ag-buy-T+A school book

He bought for the school a book.

19. a. Ni-a-tum-ag-a yuku kiri muntu.

Ag-send-T book to person

He sends the book to the person/at the person's place.

b. Ni-a-tum-ag-ir-a muntu yuku.

Ag-send-T-A person book

He sends to the person the book.

c. Muntu ni-a-tum-ag-a baruga kwa muka.

Person Ag-send-T letter at woman

The person sends a letter from/at the woman's place.

While "kiri", "re-a" (or its variants depending on the class of the governing noun), and less clearly "kw-a", can be used to express the meanings of "to" or "for"; these are not the only or even the primary readings for these forms. Their varied meanings are illustrated in the sentences of (20), (21), and (22):

20. Ni-a-theek-or-ith-ir-i-e muntu mburi jw-a murimi.

Ag-tie R 'C -T-C person goat of farmer

He caused the person to untie the farmer's goat
(or the goat of the farmer).

21. a. Muntu ni-a-thoom-ag-a kiri muka.
 Person Ag-learn/read-T to/from/at woman
 The person learns from the woman.
- b. *Muntu ni-a-ritan-ag-a kiri muka.
 Person Ag-teach-T to/at woman
 (NOT: the person teaches to the woman -
 this implies he is inside the woman.)
22. a. Muntu ni-a-ritan-ag-a kw-a muka.
 Person Ag-teach-T at woman
 The person teaches at the woman's place.
- b. Muntu ni-a-rem-ag-a mwere kw-a muka.
 Person Ag-grow-T millet at woman
 The man grows millet on the woman's (land).

While "re-a" appears to be most correctly rendered by some possessive like "of", and "kw-a" seems to represent a possessive referring to a place, "kiri" is not easily translated at all. In fact, the readings of "to" or "for" applied to these forms seem to result only by inference; for example, in contexts where "of" can imply a benefactive meaning. It is, then, not at all certain that the applied extension is closely related to these prepositions. In fact, there may even be some doubt that these prepositions mark IOs at all, since they receive IO-type readings only by "brute force". Perhaps their objects fit more neatly into some oblique category.

Nevertheless, it is possible to maintain a rule similar to dative movement if the AO is derived from an abstract prepositional source. This rule would have to be obligatory, since this abstract IO marker would never surface. Of interest here is the expectation which may arise from such a rule that any original DO in the sentence undergoing "dative movement" would be demoted. That is, if the applied object is a promoted IO, the original DO, by virtue of having been ousted, should not be expected to possess object qualities. However, while there is a preference to interpret an object prefix as referring to the benefactive object, the original DO can be marked.

23. a. Ni-a-çj-rug-iir-e kuru.
 Ag-OP-cook-T+A dog
 He cooked them (i.e., animals) for the dog.

- b. Ni-a-ci-rug-iir-e nyama.
 Ag-OP-cook-T+A meat
 He cooked for them (animals) the meat.
24. a. Muntu ni-a-ri-gur-ag-ir-a muka.
 Person Ag-OP-buy-T---A woman
 The person buys it (book) for the woman.
- b. Muntu ni-a-mu-gur-ag-ir-a yuku.
 Person Ag-OP-buy--T--A book
 The person buys for him/her a book.

The (a) sentences in (23) and (24) indicate that the original DO can be prefixed in an applied sentence. The (b) sentences represent cases where the prefixed object is interpreted as the AO.

Passivization also applies to both objects.

25. a. Nyama ni-i-rug-ag-ir-w-a muka.
 Meat Ag-cook T-A-Pass woman
 The meat is cooked for the woman.
- b. Muka ni-a-rug-ag-ir-w-a nyama.
 Woman Ag-cook-T--A-Pass meat
 For the woman is cooked the meat.
26. a. Mburi ni-i-theek-or-ag-ir-wa muka.
 Goat Ag-tie-----R--T--A-Pass woman
 The goat is untied for the woman.
- b. Muka ni-a-theek-or-ag-ir-w-a mburi.
 Woman Ag-tie R-T--A-Pass goat
 For the woman, the goat was untied.

The (a) sentences present cases of the original DO passivizing, while the (b) sentences represent passive promotion of the AO.

It is clear that both objects are accessible and possess characteristics of DOs. Regardless of whether the AO is actually derived by dative movement, it is not possible to maintain that the original DO has been demoted following the promotion of an IO. However the AO arrived in its position, the resulting sentences must be understood as containing two objects, both possessing the attributes of DO. To summarize, it has been shown up to this point that when a causee cooccurs with an underlying DO in a causative sentence, both NPs possess DO properties. In addition, when an AO cooccurs with an underlying DO, again both objects appear to be direct objects.

Causative plus Applied Sentences

The applied extension can be suffixed along with the causative. Since only two object slots are available following the causative verb, this concatenation of affixes produces a traffic jam. The LS, LDO and AO all three must compete for the two available positions. Since one NP must give way, it is in this construction where we begin to glimpse some stratification among the objects themselves. Of the object combinations that could occur (AO + LDO; AO + LS; LDO + AO; LDO + LS; LS + LDO; LS + AO), only AO + LDO actually occurs.

27. a. Ni-a-gur-*ĩ*th-*iir-ĩ*-e sukulu yuku.
 Ag-buy--C---T + A-C school book
 He caused the book to be bought for the school.
 (NOT: He caused the school to buy the book for
 someone.)
- b. ?Ni-a-gur-*ĩ*th-*iir-ĩ*-e yuku sukulu.
 Ag-buy---C--T+A-C--book school
 ?He caused the school to be bought for the book.
28. a. Muntu ni-a-gur-*ĩ*th-ag-ir-*ĩ*-a muka yuku.
 Person Ag-buy--C---T--A--C woman book
 He causes the book to be bought for the woman.
 (NOT: He causes the woman to buy the book for
 someone.)
- b. ?Muntu ni-a-gur-*ĩ*th-ag-ir-*ĩ*-a yuku muka.
 Person Ag-buy--C---T--A--C book woman
 ?The person causes the woman to be bought for the
 book.
29. a. Muntu ni-a-thik-or-*ĩ*th-ag-ir-*ĩ*-a muka nyama.
 Person Ag-buy R--C---T--A--C woman meat
 The person causes the meat to be unburi~~ed~~ for the
 woman.
 (NOT: The person causes the woman to unburi~~ed~~ meat
 for someone.)
- b. ?Muntu ni-a-thik-or-*ĩ*th-ag-ir-*ĩ*-a nyama muka.
 Person Ag-buri~~ed~~--R--C---T--A--C meat woman
 ?The person causes the woman to be unburi~~ed~~ for the
 meat.)

The first reading in English following the (a) sentences in (27) - (29) represents the only permissible interpretation. The reading, in parentheses and marked "NOT", illustrates the unacceptability of an interpretation where one of the objects

is taken to be the LS. The (b) sentences show that reversing the order of NPs to produce a sentence that is anomalous if the objects are interpreted as AO + LDO, still does not allow any alternative interpretation to surface. In these sentences, the benefactive meaning pertains only to the NP nearest the verb. There is, in addition, no way to achieve a reading that involves the causee of the causative construction.

The LS cannot be made to appear in a causative + applied sentence in the guise of an OP or oblique object, as indicated in (30) and (31).

30. *Muntu ni-a-mu-tum-ith-ag-ir-i-a muka baruga.
 Person Ag-OP-send-C---T--A--C woman letter
 The person causes him to send the letter for the woman.
31. a. *Ni-a-tum-ith-ag-ir-i-a muka baruga ni muntu.
 Ag-send-C---T--A--C woman letter by person
 He causes the letter to be sent to the woman by the person.
- b. Ni-a-theek-ith-iir-i-e muka mburi ya murimi.
 Ag-tie C T+A-C woman goat of/for farmer
 He caused the goat of the farmer to be tied for the woman.
 (NOT: He caused the goat to be tied for the woman by the farmer).
- c. Ni-a-tum-ith-ag-ir-i-a kaana nguo kwa muka.
 Ag-sew--C---T--A--C child clothes at woman
 He causes clothes to be sewn for the child at the woman's place.
 (NOT: He causes clothes to be sewn for the child by the woman).
- d. Ni-a-tum-ith-ag-ir-i-a kaana nguo kiri muka..
 Ag-sew--C---T--A--C child clothes to woman
 He causes the clothes to be sewn/fit to the child at the woman's place.
 (NOT: He causes the clothes to be fit to the child by the woman).

The sentence in (30) indicates that the usual preposition to mark demoted subjects, such as passive agents, "ni", cannot appear in this construction. The sentences in (31) show that the other available prepositions are not interpretable as marking an LS.

The inability of the LS to appear is again demonstrated by the sentences of (32), which contain two human participants. It would seem likely that a reading of causee could be given to one of the objects; but no such interpretation is possible.

32. a. Muntu ni-a-thik-or-ith-ag-ir-i-a muka kaana.
 Person Ag-bury-R--C---T--A--C woman child
 The person makes the child be unbury for the woman.
 (NOT: The person makes the woman unbury the child for someone.
 (NOT: The person makes the child unbury someone for the woman.)
- b. Muntu ni-a-gur-ith-ag-ir-i-a muka kaana.
 Person Ag-bury-C--T--A--C woman child
 The person causes the child be bought for the woman.
 (NOT: The person causes the woman to buy the child for
 for someone.)
 (NOT: The person causes the child to buy something for the
 woman.)
- c. Ni-a-or-ith-iir-i-e muntu aritwa.
 Ag-spank-C-T+A-C person students
 He caused the students to be spanked for the person.
 (NOT: He caused the person to spank the students for someone.)
 (NOT: He caused the students to spank someone for the person.)

Even in cases where the semantics would seem to prefer something other than a strict AO-LDO interpretation as in (32b), no alternative reading including the LS can emerge. The LS gives way in the rush for object positions.

While it has been shown that the order of objects in causative + applied sentences must be AO-LDO, the accessibility of these objects remains to be investigated. The following examples demonstrate that both the AO and LDO can be marked as object prefixes and can undergo passivization, indicating their status as DOs.

33. a. Muntu ni-a-mi-rug-ith-ag-ir-i-a nyama.
 Person Ag-OP-cook-C--T--A--C meat
 The person causes meat to be cooked for it (animal).
- b. Muntu ni-a-ji-rug-ith-ag-ir-i-a muka.
 Person Ag-OP-cook-C--T--A woman
 The person causes them (i.e., animals) be cooked
 for the woman.
- c. Muntu ni-a-mu-rug-ith-ag-ir-i-a nyama.
 Person Ag-OP-cook-C--T--A meat
 The person causes the meat to be cooked for him.

34. a. Muka ni-a-gur-ith-ag-ir-u-a yuku.
 Woman Ag-buy---C--T--A-Pass book
 For woman, the book is caused to be bought.
- b. Yuku ni-ri-gur-ith-ag-ir-u-a kaana.
 Book Ag-buy----C---T--A-Pass child
 The book is made to be bought for the child.
- c. John a-ka-rug-ith-ir-u-a mucere.
 Ag-T--cook-C--A-Pass rice
 For John, the rice will be caused to be cooked.
- d. Mucere ju-ka-rug-ith-ir-u-a John.
 Rice Ag-T-cook-C---A-Pass
 Rice will be caused to be cooked for John.

The sentences in (33) demonstrate that the OP can be understood as the LDO or as the AO. The sentences in (34) show that the AO and the LDO can be passivized.

It appears that in applied + causative Ss, the AO and LDO both have properties of DOs. The LS, however, which can be a DO in simple causatives, cannot appear at all in applied causatives. These observations can be summarized in terms of the relationship of clause union to the AH discussed earlier. Imagine a lower sentence containing an AO and LDO at the time of clause union. The LS has insufficient "strength" as an object to usurp or wrest an object position from either contender. Thus, finding all available object slots filled or fast becoming filled, it must sink into oblivion. This leads to the conclusion that the AO and LDO have some supremacy over the LS in objecthood.

Relativization and Reflexivization

Further evidence for the object status of the AO, LS and LDO comes from their ability to undergo reflexivization and relativization.

Direct objects can be relativized, as demonstrated in the simple sentence in (35):

35. Aritwa ba-re-a John a-ijj-i ni-ba-rug-ir-e nyama.
 Students Ag-Rel Ag-know-T Ag-cook-T meat
 The students whom John knows cooked the meat.

Non-direct objects do not relativize, as illustrated in the following sentences with prepositional forms:

36. a. *Aritwa ba-re-a John a-gur-ir-e nguo ci-a ni-ba-rug-
 Students-Rel Ag-buy-T clothes of Ag-cook
 ir-e nyama.
 T meat
 Students who John bought clothes for cooked meat.
- b. *Aritwa ci-a ba-re-a John a-gur-ir-e nguo ni-ba-rug
 Students-of Ag-Rel Ag-buy-T clothes Ag-cook
 ir-e nyama.
 T---meat
 Students for whom John bought clothes cooked meat.
37. a. *Aritwa ba-re-a John a-tum-er-e baruga kiri ni-ba-rug-
 Students Ag-Rel Ag-send-T letter to Ag-cook
 ir-e nyama.
 T meat.
 Students whom John sent a letter to cooked meat.
- b. *Aritwa kiri ba-re-a John a-tum-er-e baruga ni-ba-rug-
 Students to Ag-Rel Ag-send-T letter Ag-cook
 ir-e nyama.
 T--- meat
 Students to whom John sent a letter cooked meat.

In causatives, both the LS and LDO can be relativized:

38. a. Aritwa ba-re-a John a-rug-ith-ir-i-e nyama ba-gur-
 Students Ag-Rel Ag-cook-C--T- C meat Ag-buy
 er-e nguo.
 T meat
 The students who John made cook meat bought clothes.
- b. Muntu a-rir-e nyama i-re-a John a-rug-ith-ir-i-e
 Person Ag-eat meat Ag-Rel Ag-cook-C--T--C
 aritwa.
 students
 The person ate meat that John made the students cook.

In applied plus causative sentences, both the LDO and AO can be relativized.

39. a. Muntu ni-a-rir-e nyama i-re-a John a-rug-ith-iir-
 Person Ag-eat meat Ag-Rel Ag-cook-C-T+A
 i-e Mary.
 C
 The person ate the meat which John cooked for Mary.
- b. Aritwa ba-re-a John a-rug-ith-ag-ir-i-a nyama
 Students Ag-Rel Ag-cook-C--T--A--C meat
 ni-ba-gur-ir-e nguo..
 Ag-buy----T clothes
 The students for whom John makes meat be cooked
 bought clothes.

The sentences in (40) demonstrate that DOs can normally be reflexivized, while those in (41) - (43) show that non-direct

objects do not undergo this process.

40. John ni-a-çi-or-ir-e

Ag-Ref-spank-T

John spanked himself.

41. a. *Ni-a-çi-tum-er-e mbiça.

Ag-Ref-send-T picture

(NOT: He sent a picture of himself).

b. *Muntu ni-a-çi-tum-ith-iir-j-e muka mbiça ya.

Person Ag-Ref-send-C A+T--C woman picture of

(NOT: The person sent a picture of himself to the woman).

c. Muntu ni-a-çi-tum-ith-iir-j-e baruga ya murimi.

Person Ag-Ref-send-C A+T-C letter of farmer

The person caused the farmer's letter to be sent to himself (himself="muntu").

42. a. *Ni-a-çi-tum-ith-ir-j-e baruga kiri.

Ag-Ref-send-C--T--C letter to

(NOT: He caused someone to send a letter to himself).

b. *Ni-a-çi-tum-ith-ir-j-e baruga kiri muntu.

Ag-Ref-send-C--T--C letter to person

43. a. Muntu ni-a-tum-er-e mbiça ya gwe.

Person Ag-send-T picture of he

The person sent a picture of him(self).

b. Muntu ni-a-çi-tum-ith-iir-j-e baruga.

Person Ag-Ref-send-C T+A-C letter

The man sent himself a letter.

The sentences in (41a, b), which are ungrammatical, demonstrate that the reflexive marker cannot be interpreted as referring to an object of a preposition. The glosses marked "NOT" indicate the reading being sought, which is impossible in KiMeru. (41c) indicates that the reflexive refers back to the subject rather than to the prepositional object, when this object appears in the sentence. The sentences in (42) show that a change of preposition still does not allow the object of the preposition to be reflexivized. (42b) is not interpretable at all. The only possible rendition of "picture of himself" is given in (43a). This sentence is not actually reflexive, since the reflexive morpheme "çi" does not appear. The literal translation is "the person sent a picture of him", which can mean either "he sent the picture of himself" or "he sent the

picture of him (someone else)." The sentence in (43b) is the only possible rendition of "send to himself". It involves an applied extension rather than a prepositional form.

The following examples show that the AO, LDO and LS all behave like objects in their ability to undergo reflexivization.

44. a. Ni-a-ci-thik-ith-ag-ir-i-a kaana.
 Ag-Ref-bury-C---T--A--C child
 He causes the child to be buried for himself.
- b. Ni-a-ci-thik-ith-ag-i-a.
 Ag-Ref-bury-C---T--C
 He causes someone to bury himself.
- c. Ni-tw-i-thoom-ith-ir-i-e.
 Ag-Ref-study-C---T--C
 We made ourselves study.

These examples indicate that it is not the case that the AO, LDO or LS fail to undergo rules which operate on DOs in KiMeru.

Relative Strength of Objects

Recall that though the AO, LDO, and LS all behave like DOs, the LS is unable to compete with the AO and LDO for a position in applied-causative sentences. Thus the LS appears to have less strength of objecthood than the AO or LDO. The relative strength of the possible objects can be further demonstrated by investigating the interpretations given to single objects in constructions that potentially can have two objects.

Taking the simple applied construction first, it is clear from the sentences in (45) that an object prefix is unambiguously understood as the beneficiary or recipient (AO), and not as an NP undergoing the verb's action (underlying DO). Apparently, the AO reading takes precedence over the DO reading.

45. a. Ni-a-mi-rug-iir-e.
 Ag-OP-cook T+A
 He cooked for it (animal).
 (NOT: He cooked it for someone.)
- b. Ni-a-mu-rug-ag-ir-a.
 Ag-OP-cook--T--A
 He cooks for him/her.
 (NOT: He cooked him/her for someone.)

- c. Ni-a-çi-ryg-ag-ir-a.
 Ag-OP-cook--T--A
 He cooks for them (animals).
 (NOT: He cooks them for someone.)
- d. Muntu ni-a-mu-tum-ag-ir-a.
 Person Ag-OP-send-T--A
 The man sends to him/her.
 (NOT: The man sends him/her to someone.)

In the passive, if only one object occurs, the passivized NP is interpreted as the AO:

46. Kaana ni-ka-thik-or-ag-ir-w-a.
 Child Ag-bury---R--T--A Pass
 For the child, someone is buried.
 (NOT: The child is buried for someone.)

If sentences with two human NPs are investigated, it is discovered that the passivized or marked object is always interpreted as the AO rather than the underlying DO.

47. a. Muntu ni-a-mu-theek-or-ith-ag-ir-i-a muka.
 Person Ag-OP-tie----R--C---T--A--C woman
 The person causes the woman to be untied for him.
 (NOT: The person causes him to be untied for the woman.)

- b. Ni-a-mu-thik-ir-e muntu.
 Ag-OP-bury-A person
 He tied the person for him.
 (NOT: He tied him for the person.)

- c. Muntu ni-a-mu-tum-ag-ir-a muka.
 Person Ag-OP-send-T-A woman
 The person sends the woman to him.
 (NOT: The person sends him to the woman.)

48. a. Muka ni-a-theek-or-ith-ag-ir-u-a muntu.
 Woman Ag-tie----R--C---T--R--Pass person
 For the woman, the person is caused to be untied.
 (NOT: The woman is caused to be untied for the person.)
- b. Muka ni-a-thik-ith-ag-ir-u-a kaana kare keega.
 Woman Ag-bury--C---T--A-Pass child dem. good
 The good child is caused be buried for the woman.
 (NOT: The woman is caused be buried for good child.)

The applied interpretation is the only one given to the object in cases where only one object appears. In addition, if both objects are human, and equally plausible as recipients

or beneficiaries, the applied reading is always given to the promoted or marked NP.

Relative Strength of Objects: LS and LDO

Causative sentences which normally permit two objects (LS and LDO) to follow the causative verb, can also be produced with only one object. The sentences that follow show that the object which remains must be interpreted as an LDO rather than an LS.

49. a. Muntu ni-a-tum-ith-ag-i-a kaana.
 Person Ag-send-C---T--C child
 The person causes the child to be sent.
 (NOT: The person causes the child to send.)
- b. ?Muntu ni-a-tum-ith-ag-i-a kaana.
 Person Ag-sew-C---T--C child
 ?The person causes the child to be sewn/made.
 (NOT: The person causes the child to sew/make.)
- c. Muntu ni-a-ku-thik-ith-i-a kaana.
 Person Ag-T--bury-C---C child
 The person is causing the child to be buried.
 (NOT: The person is causing the child to bury.)
- d. Muntu ni-a-ku-thik-or-ith-i-a kaana.
 Person Ag-T-bury--R--C---C child
 The person is causing the child to be unburied.
 (NOT: The person is causing the child to unbury.)
- e. Muntu ni-a-ku-thik-ith-i-a ngatuni.
 Person Ag-T-bury--C---C lion
 The person is causing the lion to be buried.
 (NOT: The person is causing the lion to bury.)
- f. Muka ni-a-rind-ith-ir-i-e kaana.¹⁴
 Woman ag-bury--C---T--C child
 The woman caused the child to be buried.
 (NOT: The woman caused the child to bury.)
- g. Muka ni-a-rum-ith-ir-i-e kaana
 Woman Ag-bite-C---T--C child
 The woman caused the child to be bitten.
 (NOT: The woman caused the child to bite.)
- h. Muka ni-a-rum-ith-ir-i-e karu..
 Woman Ag-bite-C--T--C dog
 The woman caused the dog to be bitten.
 (NOT: The woman caused the dog to bite.)
- i. Muntu ni-a-reet-ith-ir-i-e muka.
 Person Ag-bring-C---T--C woman
 The person caused the woman to be brought.
 (NOT: The person caused the woman to bring.)

- j. Muka ni-a-~~anang~~-ith-ir-i-e muntu.
 Woman Ag-~~scarify~~-C--T--C person
 The woman caused the man to be scarified.
 (NOT: The woman caused the man to scarify.)
- k. ?Muntu ni-a-~~egg~~-ith-ir-i-e kaana.
 Person Ag-~~drill~~-C--T--C child
 ?The person caused the child to be drilled.
 (NOT: The person caused the child to drill.)

The examples in (49) confirm that the LDO is preferred over the LS. If only one object can appear, it is **the** LDO which must be retained. However, the sentences in (50) allow only the reading of LS for the single object.

50. a. Muntu ni-a-in-ith-ag-i-a kaana.
 Person Ag-dance-C-T-C child
 The person makes the child dance.
- b. Muntu ni-et-ith-ir-i-e kaana.
 Person Ag-go-C--T--C child
 The person made the child go.
- c. Muntu ni-a-gwi-ith-ag-i-a yuku.
 Person Ag-fall-C---T--C book
 The person makes the book fall.
- d. Muntu ni-a-thogan-ith-ag-i-a ngatuni.
 Person Ag-think---C---T--C lion
 The person causes the lion to think.
- e. ?Muntu ni-a-thogan-ith-ag-i-a biakuria.
 Person Ag-think---C---T--C food
 ?The man causes the food to think.
- f. Muntu ni-a-n-dikan-ith-ir-i-e.
 Person Ag-OP-recall-C--T--C
 The person made me recall (remember).

These sentences happen to contain intransitive verbs, which normally do not allow objects, as illustrated in (51).

51. a. *Muntu ni-a-gw-ir-e yuku.
 Person Ag-fall-T book
 *The person fell the book.
- b. *Muntu ni-a-thogan-ag-a ngatuni.
 Person Ag-think---T lion
 *The person thinks lion.
- c. *Muntu ni-a-thogan-ag-a muka.
 Person Ag-think--T woman
 *The person thinks woman.
- d. *Muntu ni-a-in-ag-a kaana.
 Person Ag-dance-T child
 *The person dances the child.

- e. *Kaana ne g-et-ir-e muntu.
 Child Ag-go-T person
 *The child went person.

The LS, then, appears in single-object causatives when there is no possibility of an LDO appearing - when the lower sentence contains an intransitive verb. When competition over object position arises, the LS gives way before the LDO. Though both LS and LDO behave as DOs in causatives, the LS seems to be weaker than the LDO.

Unfortunately, the neatness of this argument is undermined by the presence of some verbs which allow a single object to be interpreted as either LS or LDO in causatives:

52. a. Muntu ni-a-ku-rug-ith-ag-i-a muka.
 Person Ag-T-cook-C---T--C woman
 The person causes the woman to cook.
 The person causes the woman to be cooked.
- b. Muntu ni-a-ku-rug-ith-ag-i-a yo.
 Person Ag-T cook-C---T--C it
 The person was making someone cook it (animal).
 The person was making it (animal) cook.
- c. Muntu ni-a-mw-ig-ith-ag-i-a.
 Person Ag-OP-hear-C--T--C
 The person causes him to be heard.
 The person causes him to hear.

In some cases, a single object will violate the semantic requirements of an LDO or LS for a particular verb, forcing the object to be interpreted as only one of the two possibilities. But when an appropriate object is substituted, the blocked reading appears, as in (53).

53. a. Muntu ni-a-k-ung-ith-ag-i-a aritwa.
 Person Ag-T-weed-C--T--C students
 The person causes the students to weed.
- b. Muntu ni-a-k-ung-ith-ag-i-a mwere.
 Person Ag-T-weed-C--T--C millet
 The person causes the millet to be weeded.

Sentence (53a) contains an object understood as an LS. (53b) has an object which is understood as an LDO.

A well-motivated explanation for this phenomenon is not at hand. Apparently it is not always the case that the LDO is so much stronger than the LS that the LS cannot appear. The strength

of the LDO seems to be conditional on some factor. It comes to mind that the relevant facts might be the transitivity of the verb in question. The native speaker's reactions to the parenthesized readings in (49) - those where the object is taken to be an LS - is that the sentence is incomplete, in need of an LDO object. In contrast, the reaction to the sentences in (52) was that no LDO object was necessary. These intuitions group the sentences into those with verbs that require an underlying DO - are strongly transitive, those with verbs that allow but do not require an underlying DO - are moderately transitive, and those sentences with intransitive verbs which prohibit underlying DOs. Indeed, a transitivity hierarchy is suggested. The problem posed by the sentences of (52), however, relates not to whether the DOs in KiMeru are ranked relative to strength, but why they should be ranked as they are. Why should the LDO be stronger than the LS? Perhaps because it is "prescribed" by the verb via transitivity. Why should the AO be stronger than the LDO? Perhaps because it is promoted into object position (either by movement or by virtue of being marked on the verb). These are interesting questions for further investigation but are beyond the scope of this paper.

Intransitive Verbs

In causative plus applied sentences examined previously, the LS did not appear. According to the clause union approach, the LS did not appear because all available object positions were filled. According to the hierarchy of object strength proposed here, the LS did not surface because it was weaker than both the LDO and AO. But it could be argued that the LS only appears in the position nearest the verb, the position in which the AO appears. The competition is not, then, between LS, LDO, and AO, but only between LS and AO. Again, it could be argued that the LS and AO are simply mutually exclusive.

Intransitive verbs in causative plus applied sentences provide a test for these conjectures. If clause union operates as expected, the absence of an LDO - leaving an unfilled object

position - should allow the LS to surface. Similarly, if the LS competes with the LDO as well as the AO, the absence of an LDO should allow the presence of the LS in the second object position. In fact, these predictions are borne out, as indicated by the sentences in (54).

54. a. Muntu ni-a-in-ith-ag-ir-i-a muka kaana.
 Person Ag-dance-C-T-A woman child
 The person makes the child dance for the woman.
- b. Muntu ni-a-gwi-ith-ag-ir-i-a muntu miti.
 Person Ag-fall-C--T--A--C person tree
 The person makes the tree fall on the person.
- c. Muntu ni-a-thogan-ith-ag-ir-i-a muritani aritwa.
 Person Ag-think -C---T--A--C teacher students
 The person makes the students think for the teacher.

Thus it appears that the object hierarchy and clause union in KiMeru causatives work as expected. The LS can become a DO as long as one of the DO positions is empty.

Two-Object Verbs

KiMeru has a group of verbs which prohibit the surfacing of an LS interpretation even in the simple causative. Examples of these occur in (55).

55. a. Muntu ni-a-ku-ritan-ith-i-a muritani Kiswahili.
 Person Ag-T-teach--C---C teacher Swahili
 The person is causing Swahili to be taught to the teacher.

(NOT: The person is causing the teacher to teach Swahili.)

- b. Ni-mp-ej-ag-ith-i-a muka kaana.
 Ag-give-T--C+-C woman child
 The child is caused to be given to the woman.
 (NOT: The woman is caused to give the child.)

In these sentences the object appearing next to the verb is interpreted as though it were an AO, but no applied extension occurs. However, these verbs are also peculiar in non-causative sentences where two objects occur without benefit of an applied extension:

56. a. Muritani ni-a-ku-ritan-ag-a kaana Kiswahili.
 Teacher Ag-T-teach--T child Swahili
 The teacher was teaching Swahili to the child.

- b. Muntu ni-a-kw-ej-ag-a muka kaana.
 Person Ag-T-give-T woman child
 The person was giving the child to the woman.

It might be tempting to suggest that an IO has finally been discovered, but the following sentences indicate that both objects have the characteristics of DOs.

57. a. Muka ni-a-e-r-w-e yuku ni muntu.
 Woman Ag-give-T-Pass-book by person
 The woman was given the book by the person.
 b. Yuku ni-r-e-r-w-e muka ni muntu.
 Book Ag-give-T-Pass-woman by person
 The book was given to the woman by the person.
58. a. Kiswahili ni-ki-ritan-ir-w-e kaana.
 Swahili Ag-teach T-Pass child
 Swahili was taught to the child.
 b. Kaana ni-a-ku-ritan-ir-w-e Kiswahili.
 Child Ag-T-teach--T-Pass Swahili
 To the child was taught Swahili.
59. a. Muritani ni-a-mu-ritan-ag-a Kiswahili.
 Teacher Ag-OP-teach-T-- Swahili
 The teacher teaches Swahili to him.
 b. Muritani ni-a-ki-ritan-ag-a kaana.
 Teacher Ag-OP-teach-T child
 The teacher teaches it (Swahili) to the child.

Either object can be promoted to subject position by passivization, as in (57) and (58), and either object can be marked by a prefix on the verb, as in (59).

In addition, if only one object appears in a sentence with such a verb, it can be understood as either object:

60. a. Muritani-ni-a-ritan-ag-a muntu.
 Teacher Ag-teach-T person
 The teacher teaches (to) the person.
 b. Muritani ni-a-ritan-ag-a Kiswahili.
 Teacher Ag-teach-T-- Swahili
 The teacher teaches Swahili.

With these verbs, the single object receives an interpretation of a recipient (60a) or of an object undergoing the action of the verb (60b) depending on the characteristics of the NP appearing. But "normal" verbs, which never allow two objects in non-applied constructions cannot allow the single object to have a

recipient interpretation.

61. a. *Ni-a-gur-ag-a muka yuku.
 Ag-buy-T woman book
 *He buys woman book.
- b. Ni-a-gur-ag-a kaana.
 Ag-buy-T child
 He buys the child.
 (NOT: He buys for the child.)
62. a. *Muntu ni-a-tum-ag-a muka baruga.
 Person Ag-send-T woman letter
 *The person sends woman letter.
- b. Muntu ni-a-mu-tum-ag-a.
 Person Ag-OP-send-T
 The person sends her/him.
 (NOT: The person sends to her/him.)
63. a. *Muntu ni-a-k-ung-ag-a aritwa mwere.
 Person Ag-T-weed-T students millet
 *The person weeded the students millet.
- b. ?Muntu ni-a-k-ung-ag-a aritwa.
 Person Ag-T-weed-T students
 ?The person weeded the students.
 (NOT: The person weeded for the students.)

Sentence (63b), which would be acceptable if a recipient interpretation were allowed for the object, is forced into anomaly by the requirement that the object be interpreted only as undergoing the action of the verb. The verbs of (60) can be considered as somehow inherently two-object verbs since they allow two objects without benefit of an applied extension.

The failure of the LS to appear in the causative sentences of (55) can be explained within the clause union framework if these are considered to be inherently two-object verbs. Since two-object verbs fill both available object positions in KiMeru, there is no place for the LS to go; and since the LS is lowest on the scale of object strengths, it cannot compete for a position and oust one of the incumbent objects. Thus the LS does not appear.

CONCLUSION

It has been argued that the unmarked NPs following the verb in KiMeru causatives cannot be assigned different levels of

termhood. Both NPs, whether an LS, LDO, or AO, undergo the rules used to test direct object status; and both NPS can be marked by an object prefix on the verb. Even so, there are more subtle distinctions between the objects that indicate that some are stronger than others. Thus the AO interpretation is preferred for a marked or promoted object if such a reading is logically possible. In addition, when there is only one object to which to assign the reading AO or LDO, the AO interpretation emerges. When this choice must be made between an LDO and an LS, the LDO usually surfaces. Finally, when there is competition for object positions such as arises in causative plus applied sentences, where there are three NPS trying to get into two slots, the AO and LDO, but not the LS, can appear. Taken together, this evidence suggests that the objects must be ranked in accordance with their greater tenacity or strength of objecthood as: AO - LDO - LS.

It appears probable, then, that the relation of DO, and perhaps the other relations as well, does not represent a discrete position. With this consideration, clause union in KiMeru works as expected following the description of Comrie (1976) mentioned earlier. When displaced from subject position by clause union, the LS goes in search of an unfilled position. Since two objects of DO status are allowed, a simple causative presents no difficulties: the LS simply takes up DO status next to the LDO. When two object positions are filled by other objects, the LS cannot appear at all. In two-object verbs, both object positions are filled; and, as would be expected, the LS cannot appear.

In conclusion, the relation of object must be allowed to have an internal hierarchy, at least for KiMeru. Whether such a hierarchy is a general phenomenon or only specific to KiMeru is not certain, but it will be interesting to see whether all the relations might have to be reanalyzed in such a way.

FOOTNOTES

1. This research was supported by NSF Grant SOC 75-00244 and by the Research Board of the University of Illinois.
2. I would like to thank my consultant, Mr. Cornelius Muthuri, for his patience and invaluable assistance. He is a native speaker of KiMeru, speaking a dialect from the Central District of Eastern Kenya.
3. By strength is meant "is preferred" or "has greater tenacity of position". A DO of greater strength is one which wins out over other DOs in competition for object position or is preferred over other DOs for promotion. This "strength" is used to show the relationship of the various potential DOs to each other. This notion is necessary since the objects in question all bear the same grammatical relation to the verb - that of DO. Thus it is not possible to refer to different levels of termhood to explain the behavior of the DOs in KiMeru - they must be ranked within the relation direct object.
4. The abbreviations used in glosses are as follows:

Ag=agreement prefix	A=applied
OP=object prefix	R=reversive
T=tense/aspect	Rel=Rel. clause pronoun
C=causative	Ref=reflexive

The past tense morpheme /-ir-/ and the applied /-ir-/ combine to produce /-iir-/. The English translation includes definite or indefinite articles for readability. These are not meant to imply any corresponding indefiniteness in the KiMeru sentence. Each sentence in KiMeru begins with an untranslatable and unglossed /-ni-/, and each sentence ends with an unglossed "theme vowel" - "a" or "e". /i/ and /u/ are high vowels; /i/ and /u/ are mid.
5. The consultant initially accepted a few sentences with two OPs, under some pressure, but then later rejected them. His hesitancy in regard to these sentences leads to the conclusion that, if they exist at all, they are at the extreme limits of acceptability.
6. The intransitive verbs considered throughout actually include verbs which are very nearly intransitive, but able to take certain objects. Thus verbs like "dance" can appear with cognate objects: "he danced a dance". This relaxation of the notion "intransitive" does not affect the arguments put forth, since the objects allowed following the causative forms, as in examples (1b) and (1d), are precisely those kinds of objects disallowed in simple sentences like (1a) and (1c).

7. The verb "kutuma" actually means "to make", but receives the translation "sew" in this context.
8. "Kugura" also means "to marry".
9. Bokamba (1976) suggests mirror-image ordering for objects following derivational extensions in Bantu languages. Briefly, he argues that the objects follow the verb in the reverse order of their governing extensions. He does not claim generality for this principle, but it could be operative in KiMeru. This would explain why the LS immediately follows the causative - the causative extension is verb-final. The applied extension, too, as later discussion will show, causes the applied object to immediately follow the verb. In these cases, the applied extension is word final. When the applied and causative extensions are combined in a single verb, the main causative morpheme -ith- precedes the applied extension, which is verb-final. As might be expected, the ordering of the objects places the applied object (AO) nearest the verb while the causee, in mirror image fashion, follows in the second object position (when it surfaces at all - with intransitive verbs). Again, it can be gleaned from the Shona examples of Hawkinson and Hyman (1974) that the applied extension precedes the causative when these are combined. Interestingly enough, the normal object order is causative-applied, the opposite of that in KiMeru, but mirroring the order of the extensions.

However, the facts of mirror-image ordering are not sufficient to explain the object interactions. Thus, though the final causative suffix may account for the LS-LDO ordering of KiMeru objects, it cannot be credited with imbuing its object with superior strength. As will be argued, the LS is weaker in tenacity of objecthood than the LDO, even though it precedes the LDO. The point is that the object nearest the verb is not necessarily "primary" nor the one further away "secondary". Nevertheless, it may turn out that the relative strength of objects may be in some way connected to the relative ordering of the extensions. Thus in Shona (Hawkinson and Hyman, 1974) the causative follows the applied extension in the verb stem (is nearer the end of the verb) and the LS is apparently more accessible or stronger than the AO. This is the reverse of the KiMeru situation. Whether the correlation between extension ordering and object strength is spurious or not must await further study.

10. Though the usual object order following the causative verb is LS-LDO, there are cases where the opposite -LDO-LS - may occur. The sentence in (a) below is therefore ambiguous.
 - (a) Muntu ne-a-rej-ith-ir-i-e kaana ngatuni.
 Person Ag-eat-C---T--C child lion

The person caused the child to eat the lion.

The person caused the child to be eaten by the lion.

This is apparently the result of a preference for placing more human or animate objects before (to the left of) less animate objects. The ordering of the objects in (a) can reflect either the LS-LDO order or the humanness-animacy order, resulting in ambiguity. Hawkinson and Hyman (1974) discuss similar interactions of animacy and syntactic rules.

That the humanness-animacy principle is not absolute is demonstrated by (b). Here the causee, a vegetable, is allowed to precede the human object.

(b) Muntu ni-a-rej-ith-ir-i-e yua muka.

Person Ag-eat--C--T--C flower woman

The person caused the flower (carnivorous plant) to eat the woman.

Perhaps the sentence in (a) is linked to the operation of humanness in passives. There is a preference in passives for the more human object to precede. Thus "kaana" may be passivized in (c) when it is the only object; but it may not be passivized over "muka" in (d). Here, "kaana" is not from the human class (it is prefixed by the diminutive class marker (ka)), while muka is from the human class.

(c) Kaana ne-ka-rind-ith-ir-u-e,

child Ag-bury-C---T-Pass

The child was caused to be buried.

(d) ?Kaana ne-ka-rind-ith-ir-u-e muka.

child Ag-bury-C---T-Pass woman

The child was caused to bury/be buried by the woman.

But if dog, "kuru", is substituted for woman, "muka", then "kaana" may be promoted. Sentence (e) is acceptable. In (f), however, "dog" has been advanced in front of "child", causing unacceptability.

(e) Kaana ne-ka-rind-ith-ir-u-e kuru.

child Ag-bury-C---T-Pass dog

The child was caused to bury the dog.

(f) ?Kuru ne-i-rind-ith-ir-u-e kaana.

Dog Ag-bury-C---T--C child

The dog was caused to bury/be buried by the child.

Since the humanness-animacy constraints of passives and causatives are similar, it is possible to speculate that the alternative LDO-LS reading in (a) reflects an application of passive in the lower sentence. This predicts that all human-animate object orders in causatives that could possibly derive from passives should be ambiguous. In particular, not only should human-non-human groupings as in (a) have two readings, but sentences with objects of equal animacy should also be ambiguous. This is borne out by (g):

(g) Muntu ni-a-rej-ith-ir-i-e kuru ngatuni.

Person Ag-eat-C---T--C dog lion

The person caused the dog to eat the lion.

The person caused the dog to be eaten by the lion.

Unfortunately, this conclusion is far from certain, since sentences like (h) have only one reading.

(h) Muntu ni-a-rej-ith-ir-i-e mwere jua
 Person Ag-eat-C---T--C millet flower
 The person caused the millet to eat (i.e., choke)
 the flower.

(NOT: the person caused the millet to be eaten
 by the flower (i.e., fed to a venus fly-trap).

11. There is some preference for more human or animate NPs to be leftmost in passives, though this does not seem to be absolute. (See footnote 10 for a discussion of this).
12. "Gutuma" also is used to mean "to cause".
13. See Hyman and Hawkinson (1974) for a discussion of human-ness-animacy.
14. "ku-rinda" is closer to "bury" in the English sentence than is "ku-thika". The latter differs mysteriously from the former and seems to mean "to cover with dirt".

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CHIMWI:NI PREFIX MORPHOPHONEMICS

Charles W. Kisseberth

and

Mohammad Imam Abasheikh

1. Introduction.

This paper will examine in some detail a number of phonological alternations in Chimwi:ni (a Bantu language closely related to Swahili spoken in the city of Brava in southern Somalia).¹ These alternations mostly involve the vowels in the noun class and concordial (agreement) prefixes that are the hallmark of Bantu languages, though we include mention of certain consonantal modifications directly linked to the vocalic alternations exhibited by the prefixes. While the aim of this paper is primarily to provide a description of certain aspects of the morphophonemic structure of a little known Bantu language, the data described are not without several theoretically interesting features. In particular, the alternations investigated here are pertinent to such topics as (1) the role of grammatical structure in phonology, (2) the "multiple application problem" in phonology,² (3) the question of when two or more phonological phenomena should be regarded as instances of a single process, (4) the construction of a theory of exceptions, etc. Because of the descriptive nature of this paper, and the relatively small amount of Chimwi:ni data currently available, we have provided copious illustrations of the processes examined.

2. An Inventory of Prefixes.

In order to facilitate discussion below, we give here an exhaustive list of Chimwi:ni prefixes in what we take to be their underlying form. In all cases the underlying representation chosen actually occurs as a surface allomorph of the prefix in question, and the particular allomorph chosen as basic does not appear to us to be particularly controversial. Examples are provided to illustrate the use (or uses) of each prefix.

Chimwi:ni nominals belong to one of thirteen major noun classes; each nominal bears the characteristic prefix of the noun class to which

it belongs. The Chimwi:ni noun classes (NC) and their characteristic prefixes (NCP) are listed in (1).

(1)	NC	NCP	example	gloss
	1	mu-	mu-ke	woman
	2	wa-	wa-ke	women
	3	mu-	mu-ti	tree
	4	mi-	mi-ti	trees
	5	i-	i-jiwe	stone
	6	ma-	ma-jiwe	stones
	7	chi- ³	chi-su	knife
	8	zi-	zi-su	knives
	9	N- ⁴	m-p ^h aka	cat
	10	N- ⁴	m-p ^h aka	cats
	11	li-	l-kuta ⁵	wall
	12	u-	u-huru	freedom
	13	ku-	ku-ja	to eat

It can be readily observed that some noun classes (NC1 and NC3, NC9 and NC10) have identical NCP (mu- and N- respectively). Nominals such as muke 'woman' / muti 'tree' and mp^haka 'cat' / mp^haka 'cats' are regarded as belonging to different classes (despite sharing phonologically identical NCPs) on the basis of the fact that they govern different concord (agreement) on grammatically dependent items. For example, a finite verb is obligatorily marked with a subject prefix (SP) that agrees with the noun class of the nominal functioning as subject of that verb. In (2) we list the SPs required by nominals belonging to classes 1 through 12. (In Chimwi:ni verbs do not take a SP in agreement with NC13 -- the infinitives; instead the "impersonal" SP i- is used.)

(2)	NC	SP	example	gloss
1		Ø	muke Ø-tokoseze ma:yi	'the woman boiled water'
2		wa-	wake wa-papent ^h e ma:nda	'the women shaped the dough into bread'
3		u-	muti u-burbushile	'the tree fell down'

4	ya-	miti ya-burbushile	'the trees fell'
5	i-	ijiwe i-zami:le	'the stone sank'
6	ya-	majiwe ya-zami:le	'the stones sank'
7	chi-	chisu chi-m-pote:le	'he dropped the knife - lit. knife dropped him'
8	zi-	zisu zi-m-pote:le	'he dropped the knives'
9a	∅ ⁶	mp ^h aka ∅-ji:le	'the cat ate'
9b	i-	nu:mba i-vundishile	'the house fell down'
10	zi-	mp ^h aka zi-ji:le	'the cats ate'
		nu:mba zi-vundishile	'the houses fell down'
11	li-	lkuta li-m-burbukili:le	'the wall fell on him'
12	u-	uhuru u-m-furahishi:ze	'freedom pleased him'

Although in many instances the SP required by a particular noun class is phonologically identical to the NCP characteristic of that class, this is not always the case. For instance, NC1 has mu- as its NCP, but takes ∅ as its SP; NC3 also has mu- as its NCP, but takes u- as its SP (the same as NC 12).

As in many Bantu languages, nouns belonging to NC1 and NC2 refer exclusively to human beings. The SP ∅ is thus understood as referring to a 3 sg. human subject and the SP wa- is understood as referring to a 3 pl. human even if no overt subject nominal appears. First and second person (human) subjects are indicated by the SPs listed below in (3).

(3)	1 sg. subject	ni-	e.g. ni-je	'that I eat'
	2 sg. subject	∅-	e.g. ∅-ji:lení	'what did you eat?'
	1 pl. subject	chi-	e.g. chi-na:kujá	'we are eating'
	2 pl. subject	ni-	e.g. ni-je	'that you pl. eat'

A Chimwi:ni verb may also contain an object prefix (OP) agreeing with the noun class of the object of the verb. In most instances, the OP is identical to the corresponding SP. The only differences are in the OPs for a 2 sg. and 3 sg. human object, which are xu- and mu- respectively (the corresponding SPs are both ∅).

The prefixes cited above constitute all of the phonologically distinct prefixes connected with the Chimwi:ni noun class system. The only other prefixes in the language are those associated with the verb system. These prefixes, listed in (4), indicate such things as tense, aspect, negation, etc.

(4)	present tense	na-	e.g. na-x-so:m-a	'he is reading'
	future tense	ta-	e.g. ta-ku-lim-a	'he will cultivate'
	habitual (affirmative)	hu-	e.g. hu-j-ó	'one who eats'
	habitual (negative)	ha-	e.g. ha-so:m-i	'he does not read'
	negative	nt ^h a-	e.g. nt ^h a-na-ku-la:l-a	'he is not sleeping'
	negative	si-	e.g. si-lum-é	'don't bite!'
	infinitive ⁷	ku-	e.g. ku-n-a	'to drink'
			na-ku-la:l-a	'he is sleeping'
	hypothetical	ka-	e.g. ka-fakat-á	'if he were to run'
	conditional	chi-	e.g. chi-f-a	'if he dies'
	past	chi-	e.g. chi-j-a	'he was eating'
	continuative			

3. Vowel Drop-I. A number of prefixes in Chimwi:ni exhibit an alternation between V and Ø (null) in certain, but not all, pre-consonantal positions. The infinitive prefix ku- can be used to illustrate the pattern of alternation. In (5) we cite examples where ku- is maintained in tact before a consonant, and in (6) we give examples where the vowel of this prefix is dropped.

(5)	ku-bo:l-a	'to steal'	ku-won-a	'to see'	ku-viv-a	'to be ripe'
	ku-da:r-a	'to touch'	ku-zi:k-a	'to bury'	ku-je:r-a	'to be ashamed'
	ku-ye:l-a	'to be full'	ku-gi:t-a	'to pull'	ku-ma:l-a	'to finish'
	ku-ñaku:l-a	'to claw'	ku-l-a	'to cry'	ku-lip-a	'to pay'
	ku-re:b-a	'to stop'	ku-his-a	'to feel'	ku-'e:t-a	'to blame'

- (6)
- | | | |
|---------------------|-------------------------|-----------------------|
| x-pik-a 'to cook' | x-pe:nd-a 'to like' | x-ful-a 'to forge' |
| x-fa:ñ-a 'to do' | x-tek-a 'to laugh' | x-ti:nd-a 'to cut' |
| x-tafun-a 'to chew' | x-tu:l-a 'to calm down' | x-so:m-a 'to read' |
| x-su:l-a 'to want' | x-chi:mbil-a 'to flee' | x-chor-a 'to engrave' |
| x-shi:k-a 'to hold' | x-shom-a 'to sew' | x-kos-a 'to err' |
| x-kas-a 'to hear' | | |

From the preceding examples it can be readily seen that the vowel of ku- is retained before voiced consonants and the laryngeals h and ʔ, but elides before all the voiceless obstruents. The elision of the vowel is accompanied by the conversion of the velar stop k to its continuant counterpart x. We assume that two processes are at work in deriving x from underlying ku-; namely, a rule we call Vowel Drop, which is responsible for eliding the vowel of the infinitive prefix when it precedes a voiceless obstruent, and a rule we call Spirantization, which spirantizes a stop consonant in a prefix if that stop comes to be in a pre-consonantal position.

A further complication in the phonology of the infinitive prefix is provided by verbal roots which have been borrowed from Arabic or Somali roots containing an initial x or q. In general, Chimwi:ni speakers pronounce both of these sounds as x, though certain speakers may retain q some of the time (in an effort to remain closer to the original). The infinitive forms of such verbs are given in (7).

- (7)
- | |
|---|
| xada'-a 'to cheat' |
| xasa:r-at-a 'to lose (money, reputation)' |
| xo:f-a 'to fear' |
| xo:x-a 'to become arrogant' |
| qahir-a/xahir-a 'to force' |
| qaribil-a/xaribil-a 'to go close to' |
| qiya:s-ish-a/xiya:s-ish-a 'to measure' |
| qusudil-a/xusudil-a 'to intend' |

These roots exhibit a \emptyset allomorph of the infinitive prefix. The \emptyset form of the prefix can be accounted for by assuming that in addition to the

rules of Vowel Drop and Spirantization there is also a rule of Cluster Simplification, which can be formulated (roughly) as in (8).

$$(8) \quad x \text{ ----} \rightarrow \emptyset / \text{ --- } \left\{ \begin{array}{c} x \\ q \end{array} \right\}$$

The derivation of xo:f-a, then, would be as follows:

- (9)
- | | |
|-----------|------------------------|
| ku-xo:f-a | |
| k-xo:f-a | Vowel Drop |
| x-xo:f-a | Spirantization |
| xo:f-a | Cluster Simplification |

The major alternative to this sort of analysis would be to assume that the infinitive prefix has two underlying shapes, /ku/ and \emptyset , and that the latter allomorph is selected by x/q-initial roots. Some evidence will be given later which indicates that it would be incorrect to claim that x/q-initial roots occur with a \emptyset form of the infinitive marker.

Let us consider now the proposed rule of Vowel Drop in more detail. We have seen that the vowel u, a high vowel, drops from ku- when a voiceless obstruent follows. Examination of additional prefixes indicates that Vowel Drop is not restricted to just the infinitive prefix, but rather that it affects a wider range of prefixes, all of which contain a high vowel. Take, for instance, the Class 7 and Class 8 noun class prefixes chi- and zi-. In (10) we give examples where these prefixes are maintained intact, while in (11) we cite cases where their vowel is elided.

- (10)
- | | | |
|-----------|-----------------------|----------------|
| chi-barza | 'stone bench' | zi-barza (pl.) |
| chi-jamu | 'plate' | zi-jamu (pl.) |
| chi-ga:ya | 'shard' | zi-ga:ya (pl.) |
| chi-la:vi | 'fish trap' | zi-la:vi (pl.) |
| chi-mizo | 'throat' | zi-mizo (pl.) |
| chi-no:lo | 'sharpening
stone' | zi-no:lo (pl.) |
| chi-re:za | 'razor blade' | zi-re:za (pl.) |

	chi-wała 'scar'	zi-wała (pl.)
	chi-ye:mbe 'hoe'	zi-ye:mbe (pl.)
(11)	sh-pete 'ring'	s-pete (pl.)
	sh-finiko 'lid'	s-finiko (pl.)
	sh-tana 'comb'	s-tana (pl.)
	sh-toka 'axe'	s-toka (pl.)
	sh-kapu 'basket'	s-kapu (pl.)
	sh-qalbi 'little heart'	s-qalbi (pl.)
	~sh-xalbi	~s-xalbi

Notice that the NCP chi- has the alternant sh- (phonetic [ʃ]) when a voiceless obstruent follows. Clearly, this alternation can be attributed to the effects of the same two principles as derive x from ku-: namely, Vowel Drop and Spirantization. Underlying /chi-kapu/ is converted to /ch-kapu/ due to the presence of a voiceless obstruent following /chi/. Spirantization then converts /ch-kapu/ to sh-kapu since a stop in a prefix must spirantize if it is pre-consonantal.

There are several prefixes in Chimwi:ni of the shape chi- in addition to the NCP illustrated above. They include the concordial prefixes that agree with a Class 7 nominal, the 1 pl. subject and object prefixes, the conditional prefix, and the past continuative prefix. All of these prefixes assume the shape sh- in position before voiceless obstruents, as is indicated by the examples in (12).

- (12) (a) sh-kapu sh-kułu 'a large basket'
cf.
sh-kapu chi-gobe 'a small basket'
- chi-jamu sh-piya 'a new plate'
cf.
chi-jamu chi-mo:yi 'one plate'
- (b) sh-pish-il-é 'we cooked' cf. chi-reb-e:l-é 'we stopped'
wa-sh-pik-il-i:l-e 'they cooked for us' cf. wa-chi-reb-el-e:l-e
'they stopped for us'

- (c) wa-sh-pik-a 'they were cooking; if they cook'
 cf. wa-chi-vu:l-a 'they were fishing; if they fish'
 wa-sh-tez-a 'they were playing; if they play'
 cf. wa-chi-darbat-a 'they were getting ready; if they
 get ready'

It is possible for there to be more than one occurrence of a /chi/ prefix in a verbal form. Notice that since /chi/ begins with a voiceless obstruent, it could possibly condition the deletion of a preceding prefixal high vowel. But /chi/ also is eligible to undergo the elision of its high vowel when it precedes a voiceless obstruent. The question then arises as to how the language treats successive occurrences of prefixes of the shape /chi/. Consider the data in (13).

- (13) (a) sh-chi-vu:l-a 'we were fishing; if we fish'
 sh-chi-lim-a 'we were cultivating; if we cultivate'
 (b) sh-chi-pik-a 'we were cooking; if we cook'
 sh-chi-fum-a 'we were weaving; if we weave'

Subject prefixes precede the past continuative/conditional prefix /chi/ (cf. wa-chi-vu:l-a 'they were fishing; if they fish'). It can be seen from (13a) that the 1 pl. subject prefix /chi/ undergoes Vowel Drop when it precedes the past continuative/conditional prefix /chi/. In (13b), we see that the past continuative/conditional prefix does not undergo Vowel Drop before a voiceless obstruent if the 1 pl. subject prefix has undergone the rule. Compare wa-sh-pik-a 'they were cooking; if they cook', where we see that the past continuative/conditional prefix does elide its vowel when it is preceded by a prefix that does not lose its vowel. There is, of course, a good reason that we get sh-chi-pik-a rather than, say, *sh-sh-pik-a. The language does not generally permit three consonant clusters nor geminates in pre-consonantal position.

It would seem plausible then to formulate the rule of Vowel Drop as in (14).

$$(14) \quad \begin{matrix} [+high] \\ V_a \end{matrix} \text{ -----} \rightarrow \emptyset \quad / \quad \left\{ \begin{matrix} \# \\ V \end{matrix} \right\} C \text{ ---} + \begin{matrix} C \\ [-voice] \end{matrix} V$$

condition: V_a is contained within certain
prefixes (to be specified below)

This formulation of Vowel Drop will yield the correct surface forms, provided we guarantee that given an underlying representation such as /chi-chi-pik-a/ 'we were cooking' the rule applies first to the leftmost /chi/ prefix. Given that stipulation, /chi-chi-pik-a/ will be converted to /sh-chi-pik-a/ by Vowel Drop (and Spirantization). Application of Vowel Drop to the 1 pl. subject prefix /chi/ (which is leftmost in the structure) prevents the past continuative/conditional prefix from undergoing Vowel Drop, since the conditions specified in (14) will not be satisfied: in particular, a consonant cluster will precede.

If rule (14) were applied simultaneously to all relevant segments in the structure /chi-chi-pik-a/, both /chi/ prefixes would meet the structural description of (14) and would delete their vowels. The resulting form would be the incorrect *shshpika. On the other hand, if (14) were applied first to the rightmost prefix, we would derive *chi-sh-pika. This is a possible Chimwi:ni word (see below), but it doesn't mean 'we were cooking; if we cook'.

The above data thus provide evidence in favor of the claim that the application of a phonological rule to one part of a structure may affect the possibility of applying that very same rule to some other part. The reader is referred to Kenstowicz and Kisseberth (1977) for additional discussion of this property of phonological rules.

Additional evidence that Vowel Drop applies first to the leftmost occurrence of an eligible prefix is provided by the negative past tense verbal form. This particular form shares with a number of other verbal tenses the property of requiring the presence of what appears to be the infinitive prefix /ku/. The structure of the negative past tense form is Negative Prefix-Subject Prefix-/ku/-(Object Prefix)-Verb Stem-a. Some examples are given in (15).

- (15) nt^ha-wa-ku-mo:l-a 'they didn't shave'
 nt^ha-wa-x-pik-a 'they didn't cook'
 nt^ha-sh-ku-vu:k-a 'we didn't go away'
 nt^ha-sh-ku-tez-a 'we didn't play'
 nt^ha-sh-ku-kos-a 'we didn't miss'

Notice that the prefix /ku/ undergoes Vowel Drop in nt^hawaxpika, showing that it is eligible to undergo the rule; the 1 pl. subject prefix /chi/ undergoes Vowel Drop in a form such as nt^hashkuvu:ka since it precedes the voiceless obstruent of /ku/. The crucial example is one like nt^hashkukosa, which shows that once Vowel Drop applies to /chi/ it cannot also apply to /ku/, even though /ku/ precedes a voiceless obstruent. Pronunciations such as *nt^hashxkosa or *nt^hachixkosa cannot be used to convey the meaning 'we didn't miss'.

Let us summarize briefly. We have given evidence that prefixes of the shape /ku/, /chi/, and /zi/ in Chimwi:ni all elide their vowel when preceding a voiceless obstruent, subject to the condition that the vowel in question be in the context $\left\{ \begin{smallmatrix} \# \\ \check{V} \end{smallmatrix} \right\} C \text{ ______ } CV$. Notice that each of these prefixes begin with an obstruent consonant and contains a high vowel. There are only two other prefixes in Chimwi:ni that possess these characteristics: the negative prefix si- and the 2 sg. object prefix xu-. The negative marker si- also undergoes Vowel Drop, as the data in (16) attest.

- | | | | | | |
|------|-----------|----------------|-----|------------|-------------------------|
| (16) | s-pik-é | 'don't cook!' | cf. | si-bo:l-é | 'don't steal!' |
| | s-fakat-é | 'don't run!' | | si-vu:nd-é | 'don't break!' |
| | s-tek-é | 'don't laugh!' | | si-da:r-é | 'don't touch!' |
| | s-kos-é | 'don't miss!' | | si-gaf-é | 'don't make a mistake!' |

Since the consonant of si- is both a continuant and voiceless, the rules of Spirantization and Voicing Assimilation apply vacuously in the derivation of examples such as s-pik-é.

The 2 sg. object prefix xu- retains its vowel before all consonants, whether voiced or voiceless. Among prefixes of the shape obstruent plus high vowel, it is the only one that does not undergo Vowel Drop. We will assume that it is simply marked as an exception to the rule.

The following examples illustrate the retention of the vowel of xu- both when a voiced and also when a voiceless consonant follows.

- (17) xu-bish-il-e '(he) hit you'
 xu-pik-il-i:l-e '(he) cooked for you'
 wa-xu-gi:s-il-e 'they pulled you'
 wa-xu-korsh-e:z-e 'they reared you'

Prefixes of the shape obstruent plus low vowel (no mid vowels occur in Chimwi:ni prefixes) do not elide their vowel in any pre-consonantal environment. The future tense marker /ta/ and the conditional prefix /ka/ illustrate this point.

- (18) wa-ta-ku-gi:t-a 'they will pull'
 ka-so:m-á 'if he read'
 ka-vu:l-á 'if he fished'

The future prefix always occurs in conjunction with a following /ku/ and never loses its vowel in this context. The conditional prefix /ka/, on the other hand, can occur before a full range of sounds, but it also retains its vowel.

For the time being let us assume that Vowel Drop affects only prefixes with the structure obstruent plus high vowel. We can now revise (14) as follows:

$$(14)' \quad \begin{array}{c} V \\ [+high \\ +prefix] \end{array} \xrightarrow{\quad} \emptyset / \left\{ \begin{array}{c} \# \\ V \end{array} \right\} + [-sonor] \quad \text{---} + CV$$

(where [+prefix] is an ad hoc device indicating that somehow this rule must be limited to prefixes; the appropriate formalism for accomplishing this is beyond the scope of the present paper)

We have ignored up to this point a number of complexities regarding Vowel Drop. As formulated in (14)', the rule of Vowel Drop would apply in certain cases where it must not apply. We will discuss these cases now. Consider the data in (19).

- (19) (a) chi-sima 'well' zi-sima (pl.)
 chi-siwa 'island' zi-siwa (pl.)
 chi-su:to 'gift from bridegroom' zi-su:to (pl.)
 chi-sala 'prayer rug' zi-sala (pl.)
 chi-shepe 'old cloth' zi-shepe (pl.)
 chi-shi:ndo 'noise' zi-shi:ndo (pl.)
- (b) chi-som-e:l-é 'we read'
 chi-safir-i:l-é 'we traveled'
 chi-shi:nz-il-é 'we won'
 chi-show-e:t-é 'we put on new clothes'
- (c) si-so:m-é 'don't read!'
 si-she:r-é 'don't slide!'
 si-sa:y_ɔ-é 'don't help!'
 si-shi:k-é 'don't hold!'

The preceding data show that the prefixes with initial s, z, or ch fail to elide their vowel before the voiceless coronal continuants s and sh. In other words, Vowel Drop will not apply if it will result (after Spirantization and voicing assimilation) in the sequences ss, ssh, shs, or shsh. It is just the coronal continuants that lead to the retention of the vowels of the prefixes illustrated in (19); vowels are dropped before coronal stops and affricates.

- (20) (a) sh-tana 'comb' s-tana (pl.)
 sh-toka 'axe' s-toka (pl.)
- (b) sh-tesh-el-é 'we laughed'
 sh-tande:z-é 'we spread it'
 sh-chimbi:l-é 'we ran away'
- (c) s-tek-é 'don't laugh!'
 s-ta:ndaz-é 'don't spread!'
 s-chi:mbil-é 'don't run away!'

In order to prevent Vowel Drop from applying to the forms in (19), we must revise (14)' as follows:

$$(14)'' \quad \begin{array}{c} V \\ [+high \\ +prefix] \end{array} \xrightarrow{\quad} \emptyset / \left\{ \begin{array}{c} \# \\ V \end{array} \right\} \begin{array}{c} C \\ [-sonor \\ +coron] \end{array} \xrightarrow{\quad} \begin{array}{c} C \\ [-voice \\ [+coron \\ +cont] \end{array}$$

This rule now says that a high vowel in a prefix that has a coronal obstruent will delete only if followed by a voiceless obstruent that is not a coronal continuant.

Another environment where Vowel Drop fails to apply is before object prefixes. The object prefixes of the shape /chi/ (indicating a 1 pl. object or an object belonging to NC 7) and /xu/ (indicating a 2 sg. object) are the only ones that have the right shape to induce Vowel Drop (i.e. they have an initial voiceless obstruent). Vowel Drop fails to apply, however, to a prefix that precedes these object prefixes. For instance, in wa-chi-xu-big-a 'if they hit you', the conditional prefix chi- does not drop its vowel before xu-, even though *washxubiga is a form that in no way violates Chimwi:ni surface phonetic patterns. Similarly, in si-chi-lum-é 'don't bite it (NC 7)', the negative prefix si- resists Vowel Drop before the chi- object prefix referring to nouns of class 7. Finally, in chi-xu-reb-e:l-é 'we stopped you', the 1 pl. subject prefix chi- retains its vowel before xu-.

It is only prefixes functioning as object markers that fail to trigger Vowel Drop; other prefixes of the appropriate phonetic structure do trigger the rule. Examples where the chi- conditional prefix triggers Vowel Drop were cited above. The future tense marker also induces Vowel Drop.

- (21) sh-ta-ku-vu:l-a 'we will fish'
 s-ta-x-fu:nguk-a 'they (e.g. zoloko 'windows') will be open'
 s-ta-x-fo:fat-a 'they (e.g. ngo:mbe 'cattle') will go to graze'

The failure of Vowel Drop to apply before the object prefixes provides supporting evidence for our earlier account of how an underlying representation such as /chi-chi-pik-a/ 'if we cook' is converted to shchipika rather than *chishpika or *shshpika. We claimed that

application of Vowel Drop first to the leftmost prefix created a context that blocked the rule's application to the following prefix. Consider now the underlying representation /chi-chi-pik-e/ 'that we cook it (referring to a class 7 noun)'. This representation is realized phonetically as chishpika. That is, the object prefix next to the verb root undergoes Vowel Drop but not the subject prefix chi-. This follows from the proposed analysis. The subject prefix is prevented from undergoing the rule since Vowel Drop fails to apply to a prefix that precedes an object prefix. The chi- object prefix is in the appropriate environment to undergo Vowel Drop since it is followed by the verb root /pik/ 'cook' which has an initial voiceless obstruent and is not preceded by a consonant cluster (thanks to the fact that the subject prefix retained its vowel). The contrast between sh-chi-pik-a 'if we cook' and chi-sh-pik-e 'that we cook it (class 7)' shows clearly that the susceptibility of a prefix further to the right to undergo Vowel Drop is dependent on whether a prefix further to the left undergoes the rule.

We will show later that other rules of Chimwi:ni prefix morphophonology are blocked in position before an object prefix. Thus the failure of Vowel Drop to apply here is part of a more general pattern. Description of this phenomenon could take different forms. For example, one might mark object prefixes in the lexicon as being exceptions to Vowel Drop in that they do not trigger the rule's application. (See Kenstowicz and Kisseberth (1977) for discussion of environmental exceptions.) Alternatively, one might claim that there is a boundary stronger than just morpheme boundary between a prefix and an object prefix. This strong boundary could then serve to block application of Vowel Drop (as well as other, similarly constrained rules dealt with later). The boundary solution provides greater generalization (one does not have to mark the prefixes for which rules they fail to trigger; a rule will automatically fail to apply before the object prefixes due to the strong boundary located there), though we have no other arguments favoring it over the environmental exception approach.

Yet another environment exists where Vowel Drop fails to apply,

though the facts here are more complicated and a full treatment is not required for our present purposes. Consider the data in (22).

- (22) chi-to 'gem' zi-to (pl.)
 chi-ti 'chair' zi-ti (pl.)
 chi-fo 'mortality'
 chi-fu 'gizzard' zi-fu (pl.)
 chi-ke 'in a feminine way'

ku-f-a 'to die'
ku-t-a 'to pound'
ku-ch-a 'to dawn'

si-f-é 'don't die!'
si-t-é 'don't pound!'
u-si-ch-e 'let it not dawn'

chi-f-a 'if he dies'
chi-t-a 'if he pounds'
u-chi-ch-a 'if it dawns'

These examples show that Vowel Drop fails to apply when a prefix (of the relevant shape) occurs in the environment +CV#, where CV may either be a non-verbal root (as in chi-ti 'chair') or a verb root of the shape C plus the final vowel that characterizes all Chimwi:ni verbal forms (as in ku-f-a 'to die'). We shall refer to this +CV# environment as a "monosyllabic" environment.

Accent in Chimwi:ni is normally on the penultimate syllable of the word; consequently, the retention of the prefixal vowel in an example like chi-ti might be accounted for in terms of restricting Vowel Drop to unaccented vowels. This may be the correct way of looking at the problem, but certain difficulties with this view ought to be noted. First of all, if the locative suffix -ni is added to a noun, accent will ordinarily occur on the syllable immediately preceding -ni. That syllable is also lengthened. (Chimwi:ni does not

have the well-known Bantu rule that lengthens the penultimate vowel of a word, but it is the case that certain suffixes induce the lengthening of a preceding vowel.) This shift of accent does not, however, lead to the loss of the prefixal vowel in examples such as chi-ti:-ni 'on the chair'. Secondly, in the negative imperative accent is always ultimate rather than penultimate. The prefixal vowel in si-f-é 'don't die!' is thus unaccented; nevertheless, the prefixal vowel is retained. There is thus no direct connection (on the surface at least) between the retention of a prefixal vowel and the location of accent.

For our present purposes, we will simply assume that (14)' must be modified so that it fails to operate in monosyllabic environments. The formulation of this constraint will not be explored here, since additional complexities arise in connection with the behavior of prefixes that precede roots of the form -C- (such as -f- 'die') when derivational and other affixes are added to them.

4. Vowel Drop-II.

In section 3 we examined the application of Vowel Drop to prefixes of the shape CV-, where C is an obstruent and V is a high vowel. But as we saw in section 2, Chimwi:ni also has a number of prefixes of the shape CV- where C is a sonorant and V is a high vowel. Let us look now at the behavior of these prefixes when they appear in pre-consonantal environments. (23) illustrates the behavior of the 1 sg. subject prefix ni-.

- | | | | | |
|------|--------------------------|-------------|--|-------------|
| (23) | m-bo:ze ^h lé | 'I stole' | m-p ^h ishi ^h lé | 'I cooked' |
| | n-dari:lé | 'I touched' | n-t ^h eshe ^h lé | 'I laughed' |
| | ŋ-gafi:lé | 'I erred' | ŋ-k ^h ale:nt ^h é | 'I sat' |
| | n-vu:nzi ^h lé | 'I broke' | n-fake:té | 'I ran' |
| | n-zami:lé | 'I sank' | n-some:lé | 'I read' |

Note that the 1 sg. subject prefix appears consistently without a vowel, regardless of the nature of the following consonant. The nasal consonant of this prefix assimilates to a following stop consonant but remains n- when it precedes a continuant. Voiceless stops are aspirated when they are preceded by the 1 sg. (nasal) prefix.

We have claimed that the underlying shape of the 1 sg. prefix is ni-. The data in (23) obviously do not provide any evidence that the prefix contains a vowel. One source of evidence for an underlying vowel comes from cases where the 1 sg. subject prefix is followed immediately by an object prefix. In such a situation, the 1 sg. prefix appears as ni-. Some examples: ni-wa-pikili:lé 'I cooked for them', ni-xu-we:né 'I saw you', ni-chi-ji:lé 'I cooked it (class 7)', etc. ni- also retains its vowel in what we have called "monosyllabic" environments. Thus: ni-f-e 'that I die', ni-j-e 'that I eat', ni-n-e 'that I drink', etc.

We have seen in (23) that ni- elides its vowel regardless of the voicing of the following consonant, and thus it seems (at first glance anyhow) that a rule different from Vowel Drop is at work. Recall that Vowel Drop operates only on a prefix that precedes a voiceless obstruent. Nevertheless, the rule that elides the vowel of ni- is very similar to Vowel Drop in that it fails to apply before object prefixes and also fails to apply in monosyllabic environments. For the moment, let us refer to the rule affecting ni- as Vowel Drop-II and the rule discussed in section 3 as Vowel Drop-I.

One of the questions we wish to discuss in this section is the extent to which Vowel Drop-I and Vowel Drop-II should be regarded as instances of a single rule. That is, are these two phenomena really significantly connected? Before looking a little further into this question, let us show that prefixes of the shape CV-, where C is a sonorant and V is a high vowel, generally undergo Vowel Drop-II. The 2 pl. subject and object prefix ni- and the 3 sg. class 1 object prefix -mu- both undergo Vowel Drop-II, as (24) demonstrates.

- (24) wa-n-bishile 'they hit you pl.'
 wa-m-bishile 'they hit him'
 wa-n-pikili:le 'they cooked for you pl.'
 wa-m-pikili:le 'they cooked for him'
 wa-n-gi:sile 'they pulled you pl.'
 wa-m-gi:sile 'they pulled him'
 cf.
 na-ni-j-e 'that he eat you pl.' na-mu-j-e 'that he eat him'

Notice, incidentally, that the n of ni- 2 pl. does not assimilate the point of articulation of a following stop, unlike the n of the 1 sg. ni- which does assimilate. Also notice that voiceless stops are not aspirated after the nasal of either the 2 pl. or the 3 sg. whereas voiceless stops are aspirated after the nasal of the 1 sg. The 1 sg. behaves in a systematically distinct fashion from the 2 pl. and the 3 sg.; we will detail these contrasting patterns of behavior in a future paper.

The noun class/agreement prefixes mu- and li- also show the general pattern of deletion before all consonants, though once again the vowel of these prefixes is retained in monosyllabic environments.

- (25) m-fuzi 'smith' wa-fuzi (pl.)
 m-za:zi 'parent' wa-za:zi (pl.)
 m-garwa 'fisherman' wa-garwa (pl.)
 m-yakazi 'prostitute' wa-yakazi (pl.)

cf.

- mu-j-a 'one who eats' wa-j-a (pl.)
 mu-ke 'woman' wa-ke (pl.)

- m-paka 'boundary' mi-paka (pl.)
 m-kono 'arm' mi-kono (pl.)
 m-bu:yu 'baobab tree' mi-bu:yu (pl.)
 m-gahawa 'hotel' mi-gahawa (pl.)

cf.

- mu-ti 'tree' mi-ti (pl.)
 mu-to 'pool of water' mi-to (pl.)
 mu-j-o 'foods'

- l-bawa 'feather' m-bawa (pl.)
 l-pe:lo 'broom' m-p^he:lo (pl.)
 l-go:ngo 'midrib' ŋ-go:ngo (pl.)
 l-kuta 'wall' ŋ-k^huta (pl.)

cf.

- l-kuta: li-le 'a long wall'
 ni-li-j-e 'that I eat it (class 11)'

Examination of the data in (25) reveals not only that prefixes of the shapes mu- and li- undergo Vowel Drop-II, but also that the class 4 prefix mi- does not elide its vowel in any context. mi- functions as the plural prefix for roots that take class 3 mu- in the singular. Thus we have m-bu:yu 'baobab tree', but mi-bu:yu 'baobab trees'. Apparently mi- must be regarded simply as an exception to Vowel Drop-II, though it is not entirely surprising that it should fail to undergo the rule. Were it to do so, the singular and plural forms for 'baobab tree' and nouns like it would be merged.

Let us return now to the question of whether Vowel Drop-I and Vowel Drop-II should be identified as the same rule. The primary difference between the two rules is that a high vowel in an obstruent prefix such as ku- deletes only before voiceless obstruents and not voiced consonants, whereas the high vowel in sonorant prefixes drops before all consonants. The fact that both Vowel Drop I and II fail to apply before object prefixes and in monosyllabic contexts supports the claim that the two rules are in fact significantly connected. However, since there are other (unconnected) processes that fail to operate across the boundary between a prefix and an object prefix, failure of Vowel Drop I and II to operate in this particular context cannot be said to provide much evidence that the two rules are fundamentally the same. Thus it is just the fact that the two rules both (1) operate on CV- prefixes containing high vowels and (2) are blocked in monosyllabic contexts that strongly supports regarding them as really one rule.

One additional piece of evidence can be brought to bear on the question. Examine the data in (26).

- (26) -p- 'give'
- xpa 'to give'
- spé 'don't give!'
- mpa 'the one who gives' (cf. wapa 'those who give')
- namp^he 'that he give me (it)'
- nanpe 'that he give you pl.(it)'
- nampe 'that he give him(it)'
- nashpe 'that he give us(it)'

The root -p- 'give' is exceptional in that although it would be expected to induce the retention of a preceding prefixal vowel (i.e. *ku-p-a is expected, parallel to ku-f-a, and *si-p-é is expected, parallel to si-f-é), it nevertheless does permit that vowel to delete. Thus -p- is a morpheme that given its phonological structure should serve to block Vowel Drop, but exceptionally permits the rule to apply. This kind of exceptionality has not, to our knowledge, received much attention within generative approaches to phonological analysis. An adequate theory of exceptions must, however, be capable of describing such behavior. The point, however, that is relevant for our present discussion is that -p- behaves exceptionally both for prefixes that undergo Vowel Drop-I and also for prefixes that undergo Vowel Drop-II. The former rule applies in the case of spé whereas the latter rule operates in the case of mpa. Thus, a morpheme that behaves exceptionally with respect to Vowel Drop-I also behaves exceptionally with respect to Vowel Drop-II. The two rules display parallel behavior, even in the case of isolated peculiarities such as the exceptionality of -p-. This parallelism supports the view that the two really are the same rule.

Incidentally, it should be pointed out that prefixes that do not undergo either Vowel Drop-I or Vowel Drop-II never delete their vowel in the environment of -p- 'give'. For example, we noted earlier that xu- 2 sg. object prefix is an exception to Vowel Drop-I. It never undergoes the rule. It also does not lose its vowel when next to -p-, as ni-xu-pikili:lé 'I cooked for you' shows. This observation supports the claim that it is Vowel Drop I and II that is responsible for forms like xpa, spé, mpa, etc. (even though the application of Vowel Drop I and II is not ordinarily possible in such monosyllabic environments).

Assuming that it is proper to collapse Vowel Drop-I and Vowel Drop-II into a single rule, we can replace (14)'' with (27) below.

(27) Vowel Drop

$$\left[\begin{array}{l} +V_{\text{high}} \\ +\text{prefix} \\ \left\{ \begin{array}{l} \langle -\text{sonor} \rangle_a \\ [+ \text{sonor}] \end{array} \right\} \end{array} \right] \rightarrow \emptyset / \left\{ \begin{array}{l} \# \\ V+ \end{array} \right\} C \text{ --- } + C V$$

$b \langle -\text{voice} \rangle_b$

Condition: if a, then b

In section 3 we saw that prefixes of the shape CV-, where C is an obstruent and V is a high vowel, are subject to Vowel Drop when a voiceless obstruent follows. In the present section we have seen that prefixes of the shape CV-, where C is a sonorant and V is a high vowel, are subject to Vowel Drop regardless of the nature of the following consonant. There is one prefix that was ignored in the discussion of both classes of prefixes -- namely, the habitual prefix hu-. Whether h is to be regarded as an obstruent or a sonorant is unclear to us; in any case, this prefix never undergoes Vowel Drop. hu- remains unaltered before both voiced and voiceless consonants.

Two types of prefixes never undergo Vowel Drop: prefixes of the shape Ca- and prefixes of the shape V-.

5. The Treatment of Vowel-Vowel Sequences.

So far we have examined the shapes of prefixes when they occur in a pre-consonantal environment. In the present section we look at what happens to prefixes when they stand in a pre-vocalic position. Let us consider the behavior of the infinitive prefix ku- first.

(28)	k-a:l-a	'to sow'	cf.	ał-á	'sow!'
	k-e:lez-a	'to explain'		elez-a	'explain!'
	k-o:lok-a	'to go'		ołok-a	'go!'
	k-i:z-a	'to refuse'		iz-á	'refuse!'
	k-u:z-a	'to sell'		uz-á	'sell!'

The imperative forms cited in the right-hand column in (28) show that the verb roots 'sow', 'explain', 'go', 'refuse', and 'sell' are vowel-initial. The left-hand column shows that the infinitive prefix ku- deletes its vowel when followed by a vowel-initial root. Furthermore, the loss of the prefix vowel is accompanied by the lengthening of the initial vowel of the following morpheme. Thus /ku-ał-a/ becomes ka:l-a, etc.

The data in (28) can be accounted for by postulating a rule of Vowel Coalescence, which will roughly have the form given in (29).

(29) Vowel Coalescence

$$\begin{matrix} [+high] & V \\ 1 & 2 \end{matrix} \xrightarrow{2} \emptyset \quad \begin{matrix} 2 \\ [+long] \end{matrix}$$

Vowel Coalescence in Chimwi:ni is characteristic not just of the infinitive prefix, but of most prefixes of the shape CV-, where V is a high vowel and C may be either an obstruent or a sonorant. The following prefixes are subject to Vowel Coalescence: ku-, all prefixes of the shape chi-, the negative si-, the habitual hu-, both ni- functioning as a 1sg. subject/object prefix and also ni- functioning as a 2 pl. subject/object prefix, xu- 2 sg. object prefix, li- noun class/agreement prefix, zi- noun class/agreement prefix. Some examples are given in (30).

(30) a. chi- 1 pl. subject/object prefix

ch-a:sh-e 'that we light (it)' cf. ash-á 'light!'

ni-ch-o:ñesh-e 'that you pl. show us' oñesh-a 'show!'

b. si- negative prefix

s-a:nik-é 'don't spread (it) out to dry' cf. anik-a

s-o:w-é 'don't bathe' cf. ow-á

s-i:nam-é 'don't bend over' cf. inam-a

c. hu- habitual prefix

h-i:nam-a 'he bends over' cf. inam-a

h-e:nd-a 'he goes' cf. end-á

d. xu- 2 sg. object prefix

wa-ta-x-a:fish-a 'they will forgive you' cf. afish-a

chi-x-u:lil-e 'that we buy (it) for you' cf. ul-á 'buy!'

e. ni- 2 pl. subject/object prefix

wa-ta-ki-n-a:fish-a 'they will forgive you pl.'

n-o:w-e 'that you pl. bathe'

n-u:z-e 'that you pl. sell'

Prefixes of the shape Ca- do not regularly undergo Vowel Coalescence; instead, a glottal stop is inserted between the vowel a and a following vowel. This phenomenon can be illustrated by citing forms containing the hypothetical prefix ka- and the 3 pl. subject/object prefix wa- (class 2).

- (31) a. hypothetical prefix ka-
- ka-'andik-á 'if he had written'
 - ka-'epuk-á 'if he had gotten out of the way'
 - ka-'ow-á 'if he had bathed'
 - ka-'iz-á 'if he had refused'
 - ka-'uz-á 'if he had sold'
- b. ta-ku-wa-'andikił-a 'he will write to them'
- ta-ku-wa-'epuk-a 'he will avoid them'
 - wa-'ow-e:ł-e 'they washed'
 - wa-'uz-ił-e 'they bought (it)'

The data in (31) might lead one to suggest that there is a rule of Glottal Stop Insertion similar to (32) below.

(32) Glottal Stop Insertion

$$\emptyset \text{ ---} \rightarrow ' / a \text{ ______ } V$$

We will attempt to argue (see below) that (33), and not (32), is the correct form of the rule.

(33) Glottal Stop Insertion

$$\emptyset \text{ ---} \rightarrow ' / V \text{ ______ } V$$

We have shown so far that prefixes of the shape CV-, where V is a high vowel, generally undergo Vowel Coalescence when a vowel follows. Prefixes of the shape Ca-, on the other hand, are ordinarily separated from a following vowel by a glottal stop. There are, however, a few instances where Ca- prefixes appear to undergo Vowel Coalescence. Consider the data in (34).

- (34) a. wa- noun class/agreement prefix (class 2)
- | | | | |
|------------|------------------|-----------|---------|
| wa-'imb-a | 'those who sing' | cf. imb-á | 'sing!' |
| wa-'ul-a | 'those who buy' | ul-á | 'buy!' |
| wa-'olok-a | 'those who go' | olok-a | 'go!' |

but

w-i:zi 'thief'
 w-a:na 'child'
 want^h_u w-i:ngi 'many people'
 want^h_u w-e:ma 'good people'

- b. ma- noun class/agreement prefix (class 6)
- | | | | |
|-------------|---------------|-------------|------------|
| ma-'eiez-o | 'explanation' | cf. eiez-a | 'explain!' |
| ma-'ondok-o | 'departure' | cf. ondok-a | 'depart!' |

but

makofiya m-i:ngi 'many hats'
 ma'askari m-e:ma 'nice soldiers'

As can be seen from the above data, the noun class/agreement prefixes wa- and ma- appear to undergo Vowel Coalescence with noun and adjective roots that are vowel-initial, except if the root is derived from a verb. Deverbal items are separated from wa- and ma- by a glottal stop. The number of non-derived vowel-initial noun and adjective roots is quite small, thus it is not unreasonable to regard examples such as w-i:zi, w-e:ma, m-e:ma, etc., as exceptions. Even if we do regard these items as exceptions, a problem arises: we originally formulated Vowel Coalescence so as to limit it to a sequence of a high vowel followed by another vowel. If that formulation is maintained, then the prefixes wa- and ma- would have to (exceptionally) undergo a rule whose structural description they do not satisfy. In other words, a rule would have to apply even though its conditions were not satisfied by the input structure. (Recall that to account for forms such as xpa 'to give', and spé 'don't give!' we had to allow Vowel Drop to apply exceptionally in an environment where it does not ordinarily

apply.) The alternative to this sort of treatment would be to remove the requirement from Vowel Coalescence that the first vowel be a high vowel. But if we were to remove that condition, we would predict that the rule regularly applies to both high and non-high vowels. But it does not. Only the high vowels regularly undergo the rule; a undergoes Vowel Coalescence only exceptionally. It seems to us that an adequate theory of exceptions must permit us to claim that Vowel Coalescence is regularly limited to high vowels and that the low-voweled prefixes wa- and ma- irregularly undergo the rule just in case they precede a vowel-initial non-derived noun or adjective root.

We have discussed so far prefixes of the shape Ci/u- and Ca-. What about prefixes of the shape V-? (35) illustrates the behavior of such prefixes.

(35) a. u- class 12 noun class/agreement prefix

w-i:z-o 'the act of refusing'

w-e:lez-o 'explanation'

w-o:sh-o 'the act of washing'

w-u:mb-o 'creation'

b. i- class 5 and 9 subject/object prefix

chi-y-e:lez-e 'that we explain it (class 5 or 9)'

chi-y-u:z-e 'that we sell it (class 5 or 9)'

y-ele:z-a 'it (class 5 or 9) was explained'

(note: a morphophonemic rule shortens the initial vowel of the verb root in this example)

c. u- class 3 subject/object prefix

w-a:sh-il-e 'it (class 3) burned'

ku-w-i:z-a 'to refuse it (class 3)'

chi-w-u:l-e 'that we buy it (class 3)'

The above data reveal that a prefix of the shape V- will glide to the corresponding semi-vowel when a vowel follows; furthermore, that following vowel is compensatorily lengthened. The process involved can be formalized approximately as in (36).

(36) Glide Formation

$$\begin{array}{ccccccc}
 & & V & & V & & \\
 & & [+high] & & & & \\
 & & & & 1 & & 2 \\
 1 & & 2 & \implies & [-syll] & & [+long]
 \end{array}$$

(Whether or not the above type of transformational rule provides the best characterization of "compensatory lengthening" is a matter that we cannot go into here.)

Actually, it is not just prefixes of the shape V- that are subject to Glide Formation. Prefixes of the shape mu-, which would be expected to undergo Vowel Coalescence, are also subject to Glide Formation. The data in (37) illustrate this point.

(37) a. mu- class 1 object prefix

$n-t^h$ a-mw-a:fish-a 'I will forgive him'
 $n-t^h$ a-mw-e:puk-a 'I will avoid him'
 $n-t^h$ a-mw-o:sh-a 'I will wash him'
 $n-t^h$ a-mw-i:ngiz-a 'I will allow him to enter'
 $n-t^h$ a-mw-u:lil-a 'I will buy (it) for him'

b. mu- class 1 noun class/agreement prefix

mw-i:zi 'thief'
 mw-e:nza 'friend'
 mw-a:na 'child'
 mw-a:l-a 'the one who sows' cf. al-á 'sow!'
 mw-e:puk-a 'the one who avoids' cf. epuk-a 'avoid!'
 mw-o:sh-a 'the one who washes' cf. osh-á 'wash him!'

c. mu- class 3 noun class/agreement prefix

mw-i:wa 'thorn'
 mw-e:zi 'sun, moon'
 mw-a:ngi 'cooked corn'
 mw-i:z-o 'refusal' cf. iz-á 'refuse!'
 mw-e:nd-o 'trip' cf. end-á 'go!'
 mw-a:nz-o 'beginning' cf. anz-á 'begin!'

All mu- prefixes regularly assume the shape mw- before vowel-initial roots, lengthening the following vowel. These changes take place

both before verb roots and also non-derived noun and adjective roots.

We have shown so far that Chimwi:ni does not tolerate successive vowels. When two vowels are brought together in the same word as a consequence of affixation, one of three morphophonemic processes comes into play: Vowel Coalescence, Glottal Stop Insertion, or Glide Formation. Which of these rules will apply in a given situation is largely, but not entirely, predictable on the basis of the phonological shape of the prefix. Prefixes of the shape V- are all subject to Glide Formation. Prefixes of the shape CV-, where V is a high vowel, regularly undergo Vowel Coalescence, but prefixes of the shape mu- unpredictably undergo Glide Formation instead. Prefixes with the low vowel a are regularly separated from a following vowel by a glottal stop, though wa- and ma- are subject to Vowel Coalescence before non-derived noun and adjective roots.

We propose to account for the above regularities as follows. We assume that Vowel Coalescence should be reformulated as in (38).

(38) Vowel Coalescence

$$\begin{array}{ccccccc}
 +C & & V & & + & & V \\
 & & [+high] & & & & \\
 1 & & 2 & & 3 & \implies & 1 & \emptyset & 3 \\
 & & & & & & & & [+long]
 \end{array}$$

This rule will be applied first. It is limited to prefixes of the structure CV-. Prefixes of the shape mu- must be marked as exceptional in that they do not undergo the rule. The prefixes wa- and ma- must be marked as exceptions in that they do undergo the rule even though they do not meet the structural conditions (i.e. they have low vowels, not high vowels). wa- and ma- are exceptions however only before non-derived noun and adjective roots.

Next, we assume that Glide Formation has the form indicated in (36) above. It applies after Vowel Coalescence. It will affect V- prefixes, which were excluded from undergoing Vowel Coalescence, and also the mu- prefixes that were exceptions to Vowel Coalescence. Finally, we assume the existence of the rule of Glottal Stop Insertion suggested in (33). This rule will put a glottal stop between any two successive vowels within the word. It applies after Vowel Coalescence

and Glide Formation, and will affect only vowel sequences that have escaped the earlier rules.

The only examples discussed up to this point where Glottal Stop Insertion applies involves prefixes ending in the vowel a (such prefixes not being subject either to Vowel Coalescence or Glide Formation). One might therefore ask whether Glottal Stop Insertion should be limited to the sequence aV rather than generalized to all VV sequences. There does appear to be some motivation for assuming that Glottal Stop Insertion is the rule that applies as a kind of "last resort" to break up vowel sequences and that it will affect any vowel sequence that escapes the other two rules. The major piece of evidence supporting this view comes from examining data involving vowel-initial object prefixes. There are two such prefixes that we will refer to -- u (class 3 object prefix) and i (class 5 and class 9 object prefix).

- (39) ku-'u-zimiz-a 'to put it (class 3) out'
 ki-'i-ti:nd-a 'to cut it (class 5 or 9)'
 muti u-'i-vunzi:le nu:mba 'the tree smashed the house'
 ijiwe i-'u-bishi:le: muti 'the stone hit the tree'

The above data show that neither Vowel Coalescence nor Glide Formation apply to a vowel in a prefix that immediately precedes a vowel-initial object prefix. (Recall that the rule of Vowel Drop was also constrained from applying in the environment before an object prefix.) A glottal stop, however, is inserted between the two vowels. If Glottal Stop Insertion were restricted to the sequence aV we would not be able to explain the appearance of a glottal stop in the verbal forms listed in (39). If Glottal Stop Insertion affects all VV sequences, then the above data can be accounted for in a simple fashion. Vowel Coalescence and Glide Formation must be restricted so that they do not apply across the boundary between a prefix and an object prefix. Glottal Stop Insertion will not be so restricted. Consequently, when Vowel Coalescence and Glide Formation fail to affect the vowel sequences in (39), the rule of last resort -- Glottal Stop Insertion -- will come into play and separate the vowels with a glottal stop.

6. Vowel Fronting.

We have now described all of the processes affecting the vowels of Chimwi:ni prefixes except one fairly minor, but rather interesting, rule involving the fronting of the vowel u to i. Recall that the infinitive prefix is ku- when this prefix appears before verb stems beginning with voiced sounds -- cf. ku-lim-a 'to cultivate', ku-yeḷ-a 'to be full', ku-vun-a 'to harvest', ku-mo:l-a 'to shave', ku-gaf-a 'to make a mistake'. The ku- is in no way sensitive to the phonetic make-up of these verb stems -- i.e. the ku- remains unaltered regardless of which voiced consonant occurs at the beginning of the stem and regardless of the nature of the vowel that follows that voiced consonant.

ku- does, however, undergo morphophonemic variation in the examples in (40).

- (40)
- | | |
|-----------------|---------------------------|
| na-ku-m-bon-a | 'he sees me' |
| na-ku-m-won-a | 'he sees him' |
| na-ki-chi-won-a | 'he sees us' |
| na-ki-n-won-a | 'he sees you pl.' |
| ka-ku-wa-won-a | 'he sees them' |
| na-ku-'u-won-a | 'he sees it (class 3)' |
| na-ki-ya-won-a | 'he sees them (class 4)' |
| na-ki-'i-won-a | 'he sees it (class 5)' |
| na-ki-ya-won-a | 'he sees them (class 6)' |
| na-ki-chi-won-a | 'he sees it (class 7)' |
| na-ki-zi-won-a | 'he sees them (class 8)' |
| na-ki-'i-won-a | 'he sees it (class 9)' |
| na-ki-zi-won-a | 'he sees them (class 10)' |
| na-ki-l-won-a | 'he sees it (class 11)' |

From these data it can be observed that ku- shifts to ki- when it precedes an object prefix. Not all object prefixes trigger the Vowel Fronting process. The object prefixes that trigger the change either begin with a palatal consonant, or contain the palatal vowel i (or both). The palatal vowel may, of course, be deleted by Vowel Drop -- thus na-ki-l-won-a, where -li- surfaces as l. Prefixes not containing a palatal element do not trigger Vowel Fronting: -mu-, -wa-,

and -u- fall into this category. The only major complication is the behavior of the 1 sg. prefix-ni- as compared with the 2 pl. prefix -ni-. Both contain a palatal vowel underlyingly. The 2 pl. prefix triggers Vowel Fronting as expected, whereas the 1 sg. does not trigger the process. This difference in behavior is just one of several instances where the 1 sg. and the 2 pl. prefixes diverge in their behavior despite the fact that (apparently) they have the same underlying phonological shape.

One other prefix behaves like ku-; namely, the habitual prefix hu-. For instance, hu-m-p^hit-a 'he passes me', hu-m-pit-a 'he passes him', but hi-sh-pit-a 'he passes us', hi-n-pit-a 'he passes you pl.', etc. ku- and hu- are the only prefixes of the shape Cu- that can occur before an object prefix, thus Vowel Fronting could be formulated as in (41).

(41) Vowel Fronting

$$u \text{ -----} \rightarrow i \quad / +C \text{ ---} + \text{OP} \left[X \begin{bmatrix} +\text{high} \\ -\text{back} \end{bmatrix} Y \right] \text{OP}$$

note: OP refers to 'object prefix'

We have now accounted for all of the changes that the vowels in Chimwi:ni prefixes undergo, and in so doing we have accounted for the great bulk of prefixal morphophonemics in this language. The only topic that we have neglected is the behavior of the nasal consonants in the 1 sg. subject/object prefix, the 2 pl. subject/object prefix, and the class 9/10 noun class/agreement prefix. The behavior of the nasals in these prefixes will be the topic of a future paper.

Footnotes

¹Previous to our work, the only publications dealing with the analysis of Chimwi:ni (also known as Bravanese) were Whiteley (1965) and Goodman (1967). See the references at the end of the paper for a listing of the papers that we have published on Chimwi:ni. We would like to express our gratitude to the University of Illinois Research Board for the support that they have given to our work over the past three years.

²There is a sizeable literature on the multiple application problem and a complete listing of references here would be inappropriate. The reader is referred to Kenstowicz and Kisseberth 1977 for some discussion and references.

³We use the digraph ch to stand for ç and sh to stand for š. Other aspects of our orthography not directly relevant to the present paper are explained in Kisseberth and Abasheikh 1975.

⁴N- stands for a nasal that is homorganic with a following stop and is n- before the fricatives f, v, s, and z. The pre-vocalic shape of this prefix is also sometimes n-, but there are irregularities.

⁵We will show below that li-, as well as most other prefixes consisting of a sonorant plus a high vowel, drops its vowel in most (but not all) contexts. We have no examples where li-, in its function as a noun class prefix, retains its vowel. There are, however, cases where li- retains its vowel when it functions as an agreement prefix. For example, luti: li-le 'a long stick'.

⁶Class 9 (singular) nouns that refer to animates ordinarily govern the same pattern of agreement as do Class 1 (human singular) nouns. The class 10 animates, however, ordinarily do not behave any different than other class 10 nouns.

⁷The "infinitive" prefix /ku/ is used in certain finite forms of the verb. In particular, it always occurs when the present tense marker -na- occurs and when the future tense marker -ta- occurs. It also appears in the negative perfect construction. E.g.,—

wa-na-ku-lim-a 'They are cultivating.'

wa-ta-ku-lim-a 'They will cultivate.'

nt^ha-wa-ku-lim-a 'They didn't cultivate.'

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LOCATIVES AS OBJECTS IN TSHILUBA:
A FUNCTION OF TRANSITIVITY

Susan U. Stucky

0. Introduction. Locative phrases have been a subject of controversy since the beginning of grammatical analysis of Bantu languages over a hundred years ago. Traditional grammars have attributed to them functions ranging from that of subject and direct object to that of adverb. Recently, Trithart (1975) and Dalgish (1976a, 1976b) have discussed locative noun phrases in light of the grammatical relations (subject of and direct object of) these phrases may bear with respect to verbs. Since the function of such phrases has been open to question, I continue the investigation of Bantu locatives within that cluster of theories under the heading of relational grammar first proposed by Postal and Perlmutter (1974) and later expanded by Keenan (1976) and others.

This paper discusses the behavior of two types of locative phrases in Luba, one of the major dialects of Tshiluba, a language spoken in south-central Zaire.¹ The two constructions involved contain a locative morpheme, a noun, and a modifier, either an adjective or a demonstrative. The modifier may stand in agreement with either the locative morpheme or the noun itself. This phenomenon, henceforth alternative concord, has been noted in other Bantu languages, for example, Givon (1972) for ChiBemba and Dalgish (personal communication) for OluTsoosto. However, an explanation of alternative concord, has not, to my knowledge, been forthcoming in any grammatical tradition.

In this paper, it is shown that the two locative phrases, one with locative concord (LC) and the other with noun concord (NC), do indeed behave differently. The locative element in the LC phrase, it is suggested, functions as the head of that phrase. In NC phrases, on the other hand, it is the noun and not the locative which functions as the head. This difference is then reflected in the pattern of alternative concord. In certain positions these LC and NC phrases evince a syntactic as well as

semantic contrast which is not present otherwise. This contrast is shown to be related to two factors. The first is the verb. If the verb in question requires a surface direct object to be acceptable, the LC phrase is the direct object. Such verbs are, in this paper, referred to as strongly transitive verbs. If the verb does not require a surface direct object, the LC phrase has two possible functions: direct object or locative. Such verbs are referred to as weakly transitive. The choice of interpretation as a direct object or as a locative seems to be dependent on the context. This contextual information constitutes the second factor relevant to the contrast. The verbs traditionally known as intransitive do not take direct objects and it is shown that the LC phrase takes the locative reading. That this contrast between LC and NC phrases is not only semantic but also syntactic is shown by further evidence on object pronominalization and passivization.

Although the implications of such an analysis for a theory of relational grammar cannot be stated conclusively without further investigation of other objects in Tshiluba, it is clear that even the category locative is not discrete, containing within it at least two types of locatives, LC and NC phrases.

1. Background. Certain background information about Tshiluba grammatical structure will be useful in following the discussion. There is, in Tshiluba, a system of noun classes overtly marked on the noun by a prefix. In linguistic literature, these prefixes are traditionally referred to by numbers corresponding to the order in which the Proto-Bantu prefixes are given. The system will be followed in this paper. The class of the noun is determined by the prefix together with the agreement governed by the noun. A noun stem may appear with different prefixes. In each case, the meaning of the stem may be modified in some way.²

The noun class prefixes govern concord of two types, primary, that taken by most adjectives and participles, and

secondary, that taken by cardinal numbers, possessives, demonstratives, verbs in the third person, the a-link, and the interrogative -epi 'where'. Both types are obligatory. Primary concord is, in Tshiluba, always a copy of the noun prefix appearing on the adjective or participle. Secondary concord is morphologically distinct since it is not always a copy of the noun prefix. The following example illustrates both types:

1. mu-kanda mu-nene u-di pa mesa³
 cl.3-book Ag-big Ag-be on table
 primary secondary

'a/the big book is on a/the table'

As noted above, the subject governs concord on the verb obligatorily. In contrast, agreement with the direct object is not obligatory. In fact, the object agreement markers appear only when the object is deleted and in some instances of movement rules such as left and right dislocation where the object and the agreement marker are both present. The rules for object pronominalization will be discussed at a later point in this paper.

2. Locatives. The locative morphemes in Tshiluba are, pa 'on any surface', ku 'at', and mu 'in'.⁴ These morphemes may be used in reference to both time and location. This paper is concerned only with the locative sense. Various analysts at various times have attributed to these locative morphemes aspects of deixis and motion to or from (see Ružička 1959 for an overview of early analyses). In Tshiluba, at least, the relationship of speaker to hearer is handled by demonstratives, of which there are three: 'here', 'there' and 'there near the hearer'; while the notion of direction (motion to or from) is included in the verb. Thus, there are separate verbs for the concepts 'come in', 'come from', and 'go out', etc. There is no real reason to consider the locative morphemes to bear notions of deixis and motion to or from the speaker in Tshiluba.

Unlike the other noun class prefixes, the locative morphemes may appear before full nouns, that is, a noun with another prefix.⁵ Here are some examples:

2. a. pa n-zubu 'on (the) house'
on cl.9-house
- b. ku tshi-salu 'at (the) market'
at cl.7-market
- c. mu bu-atu 'in (the) boat'
in cl.4-boat

Whether the locative morphemes have, in this second instance, been considered as bound or free morphemes in the Bantu languages has depended on the point of view of the analyst. When those who devised an orthography for a Bantu language viewed the locative morpheme as an additional prefix, they combined it with the noun into a single word. In Tshiluba, no phonological evidence (such as vowel or tone coalescence) for considering the locative morphemes to be pre-prefixes as opposed to separate particles is present since no noun in Tshiluba begins with a vowel. There is some syntactic evidence for considering them to be a single unit, however. Under certain conditions, the demonstrative which normally follows a noun may precede the noun. However, the demonstrative may not come between a locative and a noun. Thus, in the following example, the only acceptable position for the demonstrative is following the noun.

3. a. pa mesa aa
on table this
'on this table'
- b. *pa aa mesa
on this table
'on this table'

In other Bantu languages there are pre-prefixes, for example, diminutives and augmentatives in KiKongo and noun pre-prefixes

in Dzamba, LuGanda and ChiBemba. In Tshiluba, however, diminutives and augmentatives appear directly affixed to the stem and no noun pre-prefixes are present. Thus, the locatives are the only instance where two noun class prefixes are affixed to a noun stem. In the absence of clear proof that the locative plus noun sequences should be treated as single words, I will conform to the traditional orthography and write them as two separate words. Locative morphemes in combination with noun stems resemble other nouns morphologically in Tshiluba while a locative morpheme together with a full noun does not.

When the locative morpheme and another noun class prefix are present, both morphemes are available for agreement. This situation gives rise to the phenomenon of alternative concord since there are two sources for the agreement: the locative morpheme itself and the noun prefix.

2.1. Locative phrases and grammatical relations. This paper presents constructions with a locative morpheme followed by a noun and a modifier which may agree with the locatives pa, ku or mu (LC) or with the noun class prefix (NC). The following examples illustrate both types, LC phrases in 4a, 5a, and 6a, and NC phrases in 4b, 5b, and 6b.⁶

4. a. pa mesa a-pa
on cl.6-table this-LC
'on this table'

b. pa mesa a-a
on cl.6-table this-NC
'on this table'

5. a. ku n-zubu e-ku
at cl.9-house this-LC
'at this house'

b. ku n-zubu e-wu
at cl.9-house this-NC
'at this house'

6. a. mu di-kopu e-mu
 in cl.5-cup this-LC
 'in this cup'
 b. mu di-kopu e-di
 in cl.5-cup this-NC
 'in this cup'

As indicated in the introduction, these phrases have somewhat different functions in a sentence depending on the degree of transitivity of the verb, that is, whether the verb is strongly transitive, weakly transitive or intransitive. Within a theory of relational grammar, the questions raised are as follows: Do these phrases bear any relation to the verb? If so, are they the same? If not, how do they differ? The grammatical relations that an NP bears to a verb in Postal and Perlmutter's 1974 version are subject of, direct object of and indirect object of. These NP's are called terms. NP's that do not bear one of these three relations to the verb are non-terms. Typical examples are instrumental and locative prepositional phrases. It has been claimed by Dalgish (1976b) and Trithart (1975) that locative phrases may be promoted from their original status as non-terms to termhood. However, they did not consider the possibility of alternative concord. The data in this paper show that LC phrases may be understood as having more qualities of objecthood (both syntactic and semantic) when the verb is strongly transitive but that the NC phrases do not possess such qualities.

The discussion begins with the question whether or not LC and NC phrases are terms.

2.1.1. Locatives in subject position. One of the tenets of relational grammar as put forward by Postal and Perlmutter (1974) is that only terms can trigger verbal agreement. In the examples below, the locative phrases in subject position govern verbal agreement. This fact may constitute an argument in favor

of termhood. However, there are at least two other explanations for this pattern of agreement. First, it may be that agreement in Tshiluba is not with a term but with a noun that is not necessarily a subject. Secondly, it could be the case that the simple noun is the term but the agreement form is with the larger phrase the noun is a part of. The examples below illustrate the agreement pattern. Note that alternative concord does not extend to the predicate; the verb and a predicate adjective always take locative agreement.

7. a. pa mesa a-pa pa-di pa-bole
on cl.6-table this-LC Ag-be Ag-wet
'the surface on this table is wet'.
b. pa mesa a-a pa-di pa-bole
on cl.6-table this-NC Ag-wet
'on this table (and not that one) is wet'
8. a. ku ditu e-ku ku-di ku-pole
at cl.5-forest this-LC Ag-be Ag-peaceful
'the area at this forest is peaceful'.
b. ku di-tu e-di ku-di ku-pole
at cl.5-forest this-NC Ag-be Ag-peaceful
'at this forest (and not some other one) is peaceful'.
9. a. mu dikopu e-mu mu-di mu-tooke
in cl.5-cup this-LC Ag-be Ag-clean
b. mu di-kopu e-di mu-di mu-tooke
in cl.5-cup this-NC Ag-be Ag-clean
'the space inside this cup is clean'

In the examples above, where something is predicated of the LC and NC phrases, no real semantic difference is apparent. However, LC phrases in subject position do not actually refer to the location, i.e. 'the table', 'the cup', or 'the forest' in subject position. Instead, the LC phrases are more correctly glossed as 'the surface on', 'the space in' and 'the area at'.

These representations are not to be confused with 'the top of', 'the inside of', and 'the place at', for which Tshiluba has separate nouns. The following examples illustrate that the NC phrase and not the LC phrase is the one appropriate for expressing actual location.

10. a. *pa mesa a-pa pa-di mi-kanda
on cl.6-table this-LC Ag-be cl.4-books
'the surface on this table is books'
- b. pa mesa a-a pa-di mi-kanda
on cl.6-table this-NC Ag-be cl.4-books
'on this table (and not that one) are books'
11. a. *ku ditu e-ku ku-di n-kashaama
at cl.5-forest this-LC Ag-be cl.9-leopard
'the area at this forest is a leopard'
- b. ku ditu e-di ku-di n-kashaama
at cl.5-forest this-NC Ag-be cl.9-leopard
'at this forest is a leopard'
12. a. *mu di-kopu e-mu mu-di n-jiji
in cl.5-cup this-LC Ag-be cl.10-flies
'the space inside this cup is clean'
- b. mu di-kopu e-di mu-di n-jiji
in cl.5-cup this-NC Ag-be cl.10-flies
'in this cup are flies'

If it is a fact that only terms can trigger agreement then these LC and NC phrases may be subjects. Next, consider the rule of reflexivization.

2.1.2. Reflexivization. Another test for termhood is the process of reflexivization. According to Postal and Perlmutter (1974) only terms can be antecedents for reflexivization. If the locatives are subjects, they should trigger reflexivization. In (13a) below an LC phrase triggers reflexivization and in (13b) an NC phrase does so. (The reflexive morpheme -di is

invariable).

13. a. mu tshi-bunda e-mu mu-di-shimbula
 in cl.7-garden this-LC Ag-Refl-collapse
 'the space inside of the garden fell in on
 itself'
- b. mu tshi-bunda e-tshi mu-di-shimbula
 in cl.7-garden this-NC Ag-Refl-collapse'
 'in this garden (and not in another garden)
 fell in on itself'

These examples indicate that both LC and NC phrases may trigger reflexivization. If it is true that only terms can be antecedents for reflexivization and if it is also true that only terms can govern agreement, then there is some reason to believe that they are in fact terms, subjects, in the sentences above. The question that arises at this point is how they got there, whether by an advancement rule (one which moves an NP up the hierarchy) or by a movement rule (one which does not change grammatical relations) or by being there underlyingly. The data examined in this paper with respect to this question suggest that locative phrases get into subject position via an inversion rule of a sort. To see this, consider cases involving passivization.

2.1.3. How locative phrases get into subject position. The Advancee Tenure Law (Postal and Perlmutter 1974) provides some indication of the status of locative subjects. This law states that a derived term produced by an advancement cannot be demoted, that is, it cannot go down the hierarchy or become a *chômeur* (and cease to bear any relations to the verb). Sentences (14a-d) below illustrate that neither LC nor NC locative subjects can be demoted by a rule of passive. A rule of passive in relational grammar promotes a direct object into subject position and demotes the subject to a position of *chômeur* (see Sheintuch 1976

for additional motivation of the position of chômeur). The following examples show that locative phrases in subject position cannot be demoted by a rule of passive.

14. a. mu bu-loba mu-fuke mu-di mu-mena tshi-ombe
in cl.4-ground LC-cultivated Ag-be Ag-grow
cl.7-manioc
'in the cultivated ground (and not on it) is
growing manioc'
- b. *tshi-ombe tshi-di tshi-menibue ku-di mu bu-loba
mu-fuke
cl.7-manioc Ag-be Ag-be grown by in cl.14-ground
LC-cultivated
*'manioc is being grown by the space in the
cultivated ground *in the ground'
- c. mu bu-loba bu-fuke mu-di mu-mena tshi-ombe
in cl.14-ground NC-cultivated ag-be ag-grow
cl.7-manioc
'in the cultivated ground (and not the uncultivated ground is growing manioc')
- d. *tshi-ombe tshi-di tshi-menibue kudi mu bu-loba
bu-fuke
cl.7-manioc ag-be ag-be grown by in
cl.14-ground NC-cultivated
*'manioc is being grown by in the cultivated
ground'

One could argue on the basis of these examples that the subject locatives must have been promoted and that is why they cannot be further demoted. It is equally plausible to argue, however, that the LC and NC phrases cannot be demoted because of semantic restrictions. That is, neither phrase is interpretable as an agent.

However, there is clearer evidence that LC and NC phrases before intransitive verbs are the result of an advancement rule

or a simple non-relation changing movement rule. Evidence for this comes from examination of sentences with verbs normally considered to be intransitive;

15. a. mu tshisalu e-mu mu-enda bakaji
 in cl.7-market this-LC Ag-walked cl.2-women
 'inside this market walked the women (and not around it)'
- b. mu tshi-salu e-tshi mu-enda ba-kaji
 in cl.7-market this-NC Ag-walked cl.2-women
 'in(to) the market walked the women'

Since grammatical relations are not marked on the noun in Tshiluba, the status of bakaji 'women' is not clear. On the surface the result is a construction analogous to that of a SVO sentence. Bakaji 'women' cannot become pronominalized into either of the two positions available for object pronouns: prefix or suffix on the verb root.⁷

16. a. e-tshi
 *mu tshi-salu e-mu mu-ba-enda
 in cl.7-market this-LC Ag-them-walked
 *'inside this market walked them'
- b. e-tshi
 *mu tshi-salu e-mu mu-enda-bo
 in cl.7-market this-LC Ag-walked-them'
 *'in(to) this market walked them'

Since 'women' does not obviously bear any grammatical relations to the verb (it does not control verb agreement or pronominalization) it could be viewed as a kind of chômeur after having been demoted by an advancement rule, except that it ought to be preceded by a preposition as are most non-terms in Tshiluba. It is possible instead to view such processes as mere movement rules, some kind of inversion perhaps, whereby the subject is moved around the verb and the locative appears in initial position. Verb agreement then, would be a rather superficial

rule, not intimately connected with relations. Such an inversion rule does not make any changes in the grammatical relations borne by the original subject nor of the locative phrase (whatever that might have been). A look at the roles played by locative phrases following the verb lends credence to this hypothesis.

2.1.4. Locative phrases following the verb. In the previous section it was shown that both LC phrases and NC phrases can appear sentence initially and that they exhibit a contrast in meaning in that position. It was suggested that this pattern was the result of an inversion rule rather than a result of a deep structure locative subject for intransitive verbs. This section outlines the constructions in which LC and NC phrases participate in complement position. The sentences below illustrate that LC phrases and direct objects are sometimes mutually exclusive.

17. a. *mu-kaji u-di u-teka mi-kanda mu tshi-longelu
mu-nene

cl.1-woman Ag-be Ag-put cl.4-books in
cl.7-school LC-big

*'the woman is putting the books the space
in the big school.'

- b. mu-kaji u-di u-teka mi-kanda mu tshi-longelu
tshi-nene

cl.1-woman Ag-be Ag-put cl.4-books in
cl.7-school NC-big

'the woman is putting the books in the big
school'

18. a. mu-kaji u-di u-bala mi-kanda mu tshi-longelu
mu-nene

cl.1-woman Ag-be Ag-read cl.4-books in
cl.7-school LC-big

'the woman is reading the books in the big
school.'

- b. mu-kaji u-di u-bala mi-kanda mu tshi-longelu
tshi-nene
cl.1-woman Ag-be Ag-read cl.4-books in cl.7
cl.7-school NC-big
'the woman is reading the books in the big
school'
19. a. mu-kaji u-di w-enda mu tshi-longelu mu-nene
cl.1-woman Ag-be Ag-go in cl.7-school LC-big
'the woman is walking into the big school'
- b. mu-kaji u-di w-enda mu tshi-longelu tshi-nene
cl.1-woman Ag-be Ag-go in cl.7-school NC-big
'the woman is walking into the big school'

Examples like (17a-b) show that LC, but not NC phrases, may render sentences with an object unacceptable. However, in the same type of construction LC and NC phrases in (18a-b) are both acceptable. Again, in (19a) and (19b) both LC and NC phrases may follow the verb. One distinction between sentences (17a) and (17b) and the sentences in (18) and (19) is the type of verb. A verb like -teka 'put' in (17) requires that a surface structure object be present in the sentence for it to be acceptable. Verbs like -bala 'read' and -enda 'walk', on the other hand, may surface without such objects.

If it is the requirement of an object by the verb (its transitivity) that is the crucial difference, then there is an explanation for the apparent contradictions in the data. Suppose that verbs which require surface structure objects, henceforth strongly transitive verbs, force on the LC phrase an object reading (in this case 'the space in'). Since there is already an object, and since the verb permits only one object, the LC phrase is one object too many and the sentence surfaces as unacceptable. In sentences (18) and (19), on the other hand, no object is required, and the LC phrase surfaces as a locative, with a reading corresponding to that of the NC phrase.⁸ Note that this analysis makes the claim that the requirement of an

object by a verb, in other words its transitivity, be extended beyond the first NP to the second. Although there is little precedent for the extension of transitivity beyond the verb's object, this analysis makes several predictions.⁹ First, if the LC phrase really is the object of strongly transitive verbs, then it, and not the NC phrase, should be acceptable when no other object is present. In the following sentence, the LC phrase is interpreted as a direct object.

20. a. mu-kaji u-nanga ku nzubu e-ku
 cl.1-woman Ag-like at cl.9-house this-LC
 'the woman likes the space at this house --
 its atmosphere'

As predicted, the NC phrase in (20b) is distinctly less acceptable in this position.

- b. *mu-kaji u-nanga ku nzubu e-mu
 cl.1-woman Ag-like at cl.9-house this-NC
 *'the woman likes at the house'

The still unconvinced might argue that the LC phrase in (18a) might not be interpreted as an object simply because it does not make any sense, that is, reading the space in the room is not plausible in the real world. Note, however that this appeal to pragmatics does not explain why the LC phrase in (17a) cannot be interpreted semantically as a locative parallel to the NC phrase in (17b) since the LC phrase should be acceptable in (17a) if it is only meaning that governs the difference.

This analysis makes a second prediction about the objecthood of LC phrases in sentences like (18a) and (18b). If the crucial factor is the requirement of an object then what about the difference between verbs in sentences like (18) and (19)? Verbs in sentences like (18) would permit an object and an LC or NC phrase while verbs like those in (19) do not normally

permit objects (although they do permit LC and NC phrases). The verbs of (19) are traditionally known as intransitive verbs. Those in (18) fall into the traditional classification of transitive verbs. But it has been suggested that the verbs like that in (17) (which are also transitive) and the verbs in (18) differ in the degree to which they require surface structure objects. Since those which require surface structure objects were referred to as strongly transitive verbs, the verbs not requiring but permitting objects are labeled weakly transitive verbs. (Other verbs falling into this category are -dia 'eat', -loba 'fish' and -songa 'carve!') Since a weakly transitive verb permits an object but does not require it, a weakly transitive verb should allow two readings, one an object reading and the other a locative reading parallel to that of the NC phrase, when the LC phrase is only an object. Sentence (21a) below has these two readings. More importantly, it has these two readings regardless of whether the modifier is present. However, where the NC phrase is substituted into (21a) as in (21b), there is only one reading: the location 'in the boat'.

21. a. mu-ntu u-di u-songa mu bu-atu mu-nene
 cl.1-man Ag-be Ag-carve cl.14-boat LC-big
 'the man is carving out the inside of the
 boat--making the boat bigger or alternatively
 'the man is carving in the boat'
- b. mu-ntu u-di u-songa mu bu-atu bu-nene
 cl.1-man Ag-be Ag-carve in cl.14-boat NC-big
 'the man is carving in the big boat'

Thus, (21) indicates that there are pragmatic (contextual) factors involved in the interpretation of the LC phrases when they are preceded by weakly transitive verbs.

Now if intransitive verbs do not generally permit objects at all, this analysis would predict that the LC phrase is not the object of an intransitive verb simply because the intransi-

tive verb does not admit objects. This would allow the locative interpretation to surface. It has already been shown that intransitive verbs do surface with both LC and NC phrases in example (19). According to the informants there is a slight contrast in meaning, corresponding to a notion of focus. However, the LC phrase does not seem to translate as 'the space in'. Example (19) is repeated here with the corresponding contrast noted in the glosses:

19. a. mu-kaji u-di w-enda mu tshi-longelu mu-nene

cl.1-woman Ag-be Ag-in cl.7-school LC-big

'the woman is walking into the big school (and not outside it)

b. mu-kaji u-di w-enda mu tshi-longelu tshi-nene

cl.1-woman Ag-be Ag-walk cl.7-school NC-big

'the woman is walking into the big school (and not the small one)

To check this intuition, one can invert the sentence. If both are acceptable as inversions, it would seem reasonable to conclude that indeed, the LC phrase has not become the object since, in sentence initial position, the object reading would not produce an acceptable sentence. Compare (19) above with (22) below.

22. a. mu tshi-longelu mu-nene u-di w-enda mu-kaji

in cl.7-school LC-big Ag-be Ag-walk cl.2-woman

'in(to) the school is walking the woman'

b. mu tshi-longelu tshi-nene u-di w-enda mu-kaji

in cl.7-school NC-big Ag-be Ag-walk cl.2-woman

'in(to) the big school is walking the woman'

Since the reading of the LC phrase in (22a) is not 'the space in the big school' but rather 'in(to) the big school' it may be concluded that the LC phrase was not an object of the intransitive verb and that the prediction was indeed borne out. Since

intransitive verbs of motion do not permit objects, the LC phrase is not an object.

2.1.5. Locative phrases and pronominalization. Examples in this section show that both LC and NC phrases may be pronominalized and that the position of the pronoun in the sentence depends on the role of the antecedent phrase. This adds credence to the analysis proposed in the preceding section by showing that other processes in the language reflect the distinctions outlined in that section. Recall from section (1) that pronouns appear only when the antecedent is deleted and in some instances of non-relation changing movement rules. Thus, in all the examples of pronominalization, but not in the examples of movement rules, the antecedent does not appear. Since the pronouns for both NC and LC phrases are identical, the reader may ask how it is possible to tell what is being pronominalized, an LC or an NC phrase (or even if the NC phrase is actually being pronominalized at all since it could be a process analogous to verb agreement whereby the locative always controls agreement). First, pronominalizations were elicited in pairs with the antecedent present in the first and the pronoun in the second. Then, the meaning was carefully checked to make sure that the pronominalized sentence had the same interpretation as the first. Secondly, there is a difference in the place of the pronouns indicating that the NC phrase and the LC phrases are distinguished in the process and thus the NC phrase is indeed being pronominalized differently from the LC phrase.

There are two positions available for pronouns (excluding the subject agreement markers): immediately preceding the verb root and following the verb root. As mentioned above, the choice of position will be shown to correlate with the function (object or locative) of the antecedent phrase.

Example (23) below corresponds to example (21). In that example, the LC phrase was deemed ambiguous. That is, the sentence could read 'the man carved out the space in the big

boat' or 'the man carved in the big boat'. The first gloss corresponds to the object reading while the second corresponds to the locative reading. Pronominalization of the first results in the appearance of the object pronoun in prefix position. Pronominalization of the second results in the appearance of a suffix pronoun. Compare (23a) and (23b) below.

23. a. mu-ntu u-di u-mu-songa
 cl.1-man Ag-be Ag-OP-carve
 'the man is carving out the space in it'
- b. mu-ntu u-di u-songa-mu
 cl.1-man Ag-be Ag-carve-OP
 'the man is carving in it'

Pronominalization of an NC phrase results in a suffix pronoun as well, reflecting the merger of syntactic and semantic LC and NC roles. It is identical to (23b) above.

Recall from examples (18a-b) that the LC and NC phrases both had a locative reading. When those are pronominalized, both pronouns appear in suffix position. The LC phrase pronoun is rejected in prefix position as is the NC pronoun.

24. mu-kaji u-di u-bala-mu
 *u-mu-bala
 cl.1-woman Ag-be Ag-read-P
 *Ag-OP-read
 'the woman is reading in it'

If the position for the object pronoun (for the LC phrase) is the prefix position, then one would expect the pronoun for the LC phrase in the examples in (20) to show up in prefix position since the only semantic interpretation assigned to an LC phrase following a strongly transitive verb is that of object. As the following example indicates, it does.

25. mu-kaji u-ku-nanga

cl.1-woman Ag-OP-like

*u-nanga-ku

Ag-like-OP

'the woman likes it there'

Furthermore, an NC phrase following the object of a strongly transitive verb is always pronominalized into suffix position regardless whether the object is pronominalized or not. Thus the position of the pronoun is controlled not by the availability of the object slot but by the function of the NC phrase. It is not the object and it does not appear in prefix position as the following example shows.

26. mu-kaji u-di u-teka-mu mi-kanda

cl.1-woman Ag-be-Ag-put-P cl.4-books

*u-mu-teka mi-kanda

Ag-P-put cl.4-books

'the woman put the books in there'

Thus, the NC phrase is always pronominalized into suffix position regardless of whether the verb is strongly or weakly transitive. The LC phrase, on the other hand, is pronominalized into prefix position in just the cases where its antecedent was analyzed as being the object of the verb. Otherwise it is pronominalized into suffix position just like the NC phrase.

This leaves the case of those intransitive verbs of motion. One might expect that since neither the LC nor the NC phrase can become an object that they would always appear as suffixes. However, this is not the case. Both LC and NC phrases are prefixed and suffixed. This is not necessarily proof that the LC and NC phrases have become objects. Since the verb does not cause the NPs to become interpreted as objects, the locatives instead retain their locative status and even if their pronouns appear in prefix position there is no danger that they will be interpreted as objects. This point needs further research but

preliminary investigation suggests that the difference in position is contextual depending on the knowledge of the speaker and hearer. Thus, (19a) and (19b) can be pronominalized as either (27a) or (27b) below.

27. a. mu-kaji u-di u-mu-enda
 cl.1-woman Ag-be Ag-P-walk
 'the woman is walking in(to) there'
- b. mu-kaji u-di w-enda-mu
 cl.1-woman Ag-be Ag-walk-P
 'the woman is walking in(to) there'

Thus, pronominalization processes add credence to the analysis proposed in the preceding sections by showing the dependence of at least one syntactic process on the distinction between LC and NC phrases.

2.1.6. LC and NC phrases and non-relation changing movement rules. Examples in this section show further syntactic differences between LC and NC phrases with respect to non-relation changing movement rules. From the examples in this paper (in particular examples 7-12) one could conclude that it is the locative morpheme which acts as the head of an LC phrase and that it is the noun and not the locative morpheme which acts as the head of a NC phrase. This would explain the alternative agreement. In light of this explanation, the behavior of these phrases with respect to agreement is not surprising. As the following discussion illustrates, the LC phrases operate as a unit for non-relation changing movement rules, i.e. Left and Right Dislocation and for Relativization, while the NC phrases may be broken up.

2.1.6.1. Left-Dislocation. Either a LC phrase or a NC phrase may be moved to the left of the subject leaving behind a pronoun on the verb.

28. a. mu tshisalu e-mu mu-kaji u-di w-enda-mu
 in cl.7-market this- LC cl.1-woman Ag-be
 Ag-walk- E e-tshi
 this- NC
 'in/side this market, the woman is walking
 (in) there'

Alternatively, the noun phrase tshisalu etshi 'This market' may be moved by itself, and the locative pronoun is suffixed onto the verb. Tshisalu emu 'this market' cannot be moved out.

28. b. *tshi-salu e-mu, mu-kaji u-di w-enda-mu
 cl.7-market this-LC cl.7-woman Ag-be Ag-walk-LP
 tshi-salu e-tshi
 cl.7-market this NC
 'this market, the woman is walking in'

2.1.6.2. Right-Dislocation. Both LC and NC phrases may be right-dislocated by leaving a pronoun behind. This construction corresponds to a notion of afterthought referred to by Byarushengo (1976). These are the only circumstances in Tshiluba under which a locative phrase and a pronoun both appear following the verb. Such a construction requires a comma intonation. Both a LC phrase and a NC phrase can be right-dislocated as in (29).

29. a. mu-kaji u-di w-enda-mu, mu tshi-salu e-mu
 cl.1-woman Ag-be Ag-walk-LP, in cl.7-market this-LC
 mu tshi-salu e-tshi
 in cl.7-market this-NC
 'the woman is walking in, inside/in this market'

Like the examples from Left-Dislocation in the preceding section, the phrase tshisalu etshi 'this market' may be dislocated while tshisalu emu 'this market' may not.

29. b. mu-kaji u-di w-endamu, *tshi-salu e-mu

cl.1-woman Ag-be Ag-walk-LP*cl.7-market this-LC

tshi-salu e-tshi

cl.7-market this-NC

'the woman is walking in, this market'

2.1.6.3. Topicalization. Topicalization, unlike Left and Right Dislocation, does not require a pronoun left behind. In this case, both NC and LC phrases can be moved to the left.

30. mu tshi-salu e-mu, mu-kaji u-di w-enda

in cl.7-market this-LC cl.1-woman Ag-be Ag-walk

mu tshi-salu e-tshi

in cl.7-market this-NC

'inside/in this market, the woman is walking'

The examples from the movement rules of Dislocation clearly show the separability of an NC phrase. Relativization also points in the same direction.

2.1.6.4. Relativization. It is within the realm of relativization that the theory of relational grammar has made one of its most interesting claims. Keenan and Comrie (1976) proposed an Accessibility Hierarchy which states that NP's on the upper end of the AH are universally easier to relativize than those on the lower end. The implicational relations of the hierarchy claim that if a language can relativize indirect objects, for example, it can also relativize a direct object, but not necessarily vice-versa. A revised version (Keenan 1976:305) of the AH appears below.

Subject > Dir. Obj. > Ind. Obj. > Oblique > Gen > Obj. of Comp.

For some Bantu languages it has been claimed that indirect objects do not get relativized first without becoming direct objects. By Dative Movement, the I.O. is promoted into D.O.

position first. A similar argument can be maintained for Tshiluba but not without reservations. If I.O.'s in Tshiluba are not relativized directly but must first be promoted to direct object position, it would be unexpected according to the predictions of the hierarchy for anything lower on the hierarchy to be relativized without first becoming a direct object. But locatives have also been shown to be relativizable, and while Trithart (1975) and Dalgish (1976a) tried to motivate a locative to direct object promotion rule essential to locative relativization, neither was particularly successful. As discussed in section 2.1.4., LC phrases may become direct objects of strongly transitive verbs.

What is needed to show that locatives are not promoted to direct object before being relativized is relativization in a sentence that already has another direct object and where the reading of both the LC phrase and the NC phrase are, according to the analysis above, not direct objects. The following example shows that both the locative phrases may be relativized and that indeed they are not promoted:

31. mu tshi-longelu e-mu mu-di-bo ba-bala mi-nkanda...
 in cl.7-school this-LC Rel-be-they they-read cl.4-books
 e-tshi
 this-NC
 'inside/in this school in which they are reading
 books...'

As in the cases of Dislocation, the LC phrase must remain a unit, but the NC phrase may be relativized out of.

32. *mu tshi-longelu e-mu tshi-di-bo ba-tokesha
 in cl.7-school this-LC Rel-be-they they-clean
 e-tshi
 this-NC
 'in this school which they are cleaning'

Until the status of indirect object relativization is solved, (31) does not pose too many problems for the theory of the AH since it could be claimed that indirect objects are not promoted (or do not exist) and that the relativization in Tshiluba simply reaches down lower in the AH.

2.1.7. Passive. In contrast to the preceding rules, consider the relation changing rule of passive. Since there is a difference in function between LC and NC phrases, one might well question their relative abilities to passivize. If the NC phrase passivizes, then it would be expected that the LC phrase would also, since when it is an object it is higher on the hierarchy. In fact, both phrases may passivize.

On a strongly transitive verb the NC phrase passivizes in two fashions analogous to the movement rules and Relativization. (Recall that an LC phrase is not permitted together with the other object.) First the entire NC phrase without a locative pronoun suffix may passivize.

33. a. mu tshi-salu e-tshi mu-tuad-ibue nzolo kudi mukaji

in cl.7-market this-NC Ag-carry-Pass chicken
by the woman

'in the market was carried a chicken by the woman'

Secondly, the 'market' may passivize separately, leaving behind a mu'LP' on the verb.

b. tshi-salu e-tshi tshi-tuadi-bue-mu nzolo kudi mukaji

cl.7-market this-NC Ag-carry-Pass-LP chicken
by woman

'this market was carried in a chicken by the woman'

Since it was argued above that in sentences with a strong transitive verb the LC phrase may not appear with another object and since a passive of (33a) with mu tshisalu emu is out, sentences (33a) and (33b) indicate that in Tshiluba, passivization may reach down the hierarchy to the level of a locative.

Both LC and NC phrases will passivize on an intransitive verb of motion as well. However, the LC phrase is more acceptable in a passive than the NC phrase. The analyst is either forced to claim that LC phrases transitivize intransitive verbs of motion or that passivization does indeed go beyond the direct and indirect object positions. Claiming the former would vitiate the argument of this paper that it is the verb which influences the interpretation of the LC phrase and not the presence of the LC phrase itself. However, evidence of inversions with intransitive verbs of motion indicated that the LC phrases did not get the object reading (see examples in 22). This leaves only the influence of the rule of Passive itself together with the proposal that the rule of Passive does extend down to the level of locative. Here is an example:

34. pa nzubu apa pa-buuk-ibua kudi nyunyu

? on cl.9-house this-LC LA-fly-Pass by bird

pa nzubu a-a

on cl.9-house this-NC

'the surface on the house was flown onto by the bird'

3. Conclusion. It has been argued that whether or not a locative phrase is interpreted semantically as a direct object is not dependent on the locative phrase itself, nor is it dependent on the phenomenon of alternative concord. Rather, it has been proposed that the degree of transitivity determines how a LC phrase is to be interpreted. Strong transitive verbs seem to have a greater power of attraction and generally rule out the occurrence of an object together with a LC phrase. Intransitive

verbs do not give an object reading to the LC phrase. Weak transitive verbs allow both LC and NC phrases and when the context requires, the LC phrase may be the object. Data from object pronominalization supported this. Furthermore, LC and NC phrases were shown to behave differently with regard to movement rules and it was suggested that the LC phrase is more tightly knit than the NC phrase.

For this analysis to hold, it was necessary to claim that a strongly transitive verb can extend its influence beyond the first NP to the second NP. Thus, while transitive verbs sometimes require that a surface structure object be present, they in turn cause certain NPs to be interpreted as objects. Whether this analysis is a valid one depends, of course, on future research. One area of investigation is that of verbs requiring two objects (inherently two object verbs and verbs with extensions such as the applied). If the verbs requiring two objects also require an LC phrase after the verb to be interpreted as an object and if these verbs do not allow an LC phrase after two other objects, this behavior would lend support to the analysis.

This analysis also claims that if there is no modifier which illustrates alternative concord, two interpretations can be assigned to a locative morpheme and an accompanying noun, subject to the conditions outlined in this paper. This would explain the source of much of the confusion surrounding Bantu locatives. And this analysis seems to be in line with a comment by one of the consultants, Mutombo, who said with reference to a sentence in which the LC phrase appears to function as a direct object, "It seems to become the object...but it's rather fuzzy."

FOOTNOTES

¹The research for this paper has been supported by an NDFL Title VI fellowship through the University of Illinois African Studies Center. Special thanks go to the two consultants, Benoit Tshiwala and Mutombo Mpanya. They represent two geographical areas (Lubumbashi and Tshikapa, respectively) where Tshiluba is spoken. The group from which Benoit comes left the Tshikapa area starting about a hundred years ago when the copper mines were opened in southern Zaire. So far as I can tell, there are no significant differences in dialect relevant to this paper. I would also like to thank Prof. Eyamba Bokamba, Prof. Charles Kisseberth and Prof. Jerry Morgan for their helpful comments. However, any errors are solely my responsibility.

²The term class or gender has also been applied to pairs of prefixes, singular and plural. In this case, a third defining feature of noun class is used. It should be noted, however, that plurals do not exist for some mass or abstract nouns such as mayi 'water' or bulunda 'friendship'. In other cases, a singular prefix may have two or more plural prefixes associated with it and vice-versa, depending on the noun. Thus, this third criterion is less constant than the first two.

³Standard orthography has been employed here with one exception. Long vowels that are not derived by rule are written as sequences of two short vowels. Tone is not marked.

⁴A fourth locative morpheme, suffixal -ni found in many eastern Bantu languages is not found in Tshiluba.

⁵Traditionally, the three locatives are considered to have come from the Proto-Bantu noun class prefixes 16 *pa, 17 *ku, and 18 *mu. Like other noun prefixes in the language these morphemes may be prefixed to noun stems. The following list illustrates the stem -ntu prefixed by the locatives as well as other prefixes, demonstrating the separability of noun stems from prefixes and the mobility of the noun stem.

pa-ntu	'the surface on something'
ku-ntu	'the area at someplace'
mu-ntu	'the inside of something'
ba-ntu	'men, people'
tshi-ntu	'thing'
bi-ntu	'things'
bu-ntu	'mankind'

Such nouns do not differ morphologically or syntactically from other nouns in the language and I am not concerned with them here. Also there is a category of locative prefix plus noun stem forms that are not discussed. These seem to be the result of a contraction rule. The inherent noun prefix is lost and resurfaces when there is a modifier present.

⁶The glosses in 4-6 are approximations at this point since it will be shown that the verb may influence the interpretation slightly.

⁷The pronoun for both LC and NC phrases turns out to be the same, thus it is difficult to tell whether an LC or an NC phrase is being pronominalized. Without further evidence, it might be argued that object pronominalization behaves as verbal agreement, that is, only locatives agree with the verb and only the locative governs the pronominalization process. There is, however, some evidence that LC and NC phrases are pronominalized differently. This shows up in the discussion of pronominalization with respect to transitive verbs in section 2.1.5. To distinguish a locative pronominal suffix from a separate morpheme, it is necessary to take into account the tone. Tone on the pronoun is low, while it is high on the separate morpheme.

⁸There does seem to be a difference in regard to focus however. (19a) means 'into the big school and not outside it' while (19b) means something like 'into the big school not the small one'. See the discussion of this example later in this section.

⁹See Hodges (in this volume) for a more refined view of the role of the verb in the semantic interpretation of object in a Bantu language, Ki-Meru.

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